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ABSTRACT

The High School with Options program, using the mini-course approach, was designed for a small (250 students) rural high school in Wessington Springs, South Dakota, which wished to take better advantage of small enrollment, expand curriculum to meet educational needs/interests of students, and provide opportunity for increased involvement of parents and students in structuring students' educational programs. First-year objectives (1973-74), to be measured by standardized pre- and post-tests, were for participating students to show: (A) significantly higher self-concept; (B) more positive attitude toward school; and (C) more positive attitude toward school subjects. Growth in self-concept relative to peer group, family, and in general was indicated for objective A. For objective B, growth in attitude toward teacher authority/control and learning was evident, but not in attitude toward teacher (mode of instruction), teacher (interpersonal relationships), school social structure, or other students. Tests for objective C evidenced: growth in attitude toward English, vocational education, and physical education; limited growth in attitude toward mathematics, foreign language, fine arts-music, science; and no growth in attitude toward social studies. Areas of concern requiring further attention were the limited growth in attitude toward: teacher (interpersonal relationships); other students; mathematics, social studies and science. (MH)

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HIGH SCHOOL WITH OPTIONS

An Analysis of the Data for 1973-74

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1974

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Preface

It has been recognized that the small rural high school has several advantages which can make it an extremely effective center for learning. Yet, in most instances, this potential has not been developed because the size has not been used to advantage. A Washington state study concluded that the frequent opportunities for interaction among teachers, students, and parents were not utilized to offer imaginative programs for the education of rural youth.

> Rather than taking advantage of the potential that exists here, the small high schools appear to be imitating traditional patterns of program organization and staff utilization. Such programs were discarded by the fine large high schools decades ago.[1]

The staff of a high school of 250 students in east-central South Dakota began looking for an approach to take better advantage of the small enrollment, while overcoming the critical weakness of a limited curriculum. There was a desire to develop an expanded curriculum which would more adequately meet the variety of educational needs and interests of the student body. Also, it was determined that the organizational pattern should provide the student and parent with the opportunity for increased involvement in the structuring of the student's educational program. The mini-course approach and a program entitled "High School With Options" was designed to meet these criteria.

It was assumed the mini-courses would lead to an improved learning atmosphere reflected in the students' attitude toward school and school subjects. Although research is limited as to the effect of mini-courses on student attitudes, the indications are positive. Morton and Dei Dolori reported that students involved in mini-courses in English and social studies at Granby (Connecticut) High School were overwhelmingly enthusiastic. Also, experienced teachers reported that discipline problems were greatly diminished due to increased student interest.[2] Kohut found that students enrolled in a mini-course

social studies curriculum showed a significant improvement in attitude toward the teachers' performance and the social studies course in comparison with the students enrolled in a traditional program.[3] Roberts and Gable did not find a significant increase in either motivation toward education or attitudes toward social studies among those students enrolled in a mini-course curriculum, but the students were found to have better attitudes toward their teachers.[4]

In the "High School with Options" program, a variety of innovations were tested, aiming toward a full quarter-course curriculum the following year. Quarter courses were developed in home economics, business education, and industrial arts. Physical education introduced the unit approach which was easily broken into separate quarter courses. The English department instituted a complete mini-course curriculum which allowed the student to choose from approximately sixteen separate courses every six weeks. Individual teachers in mathematics, social studies, and biology incorporated learning packets, contracts, and other individualized approaches into their regular programs. The result was a relaxing of the formal structure of the school and the opportunity for increased choice on the part of the students.

The following report is a summary of the first year evaluation results.

Carl E. Edeburn 2/28/78

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[1]Paul Ford, Herbert Hite, and Norman Koch. Remote High Schools: The Realities. Portland, Oregon: Northwest Regional Educational Laboratory, 1967. pp. 35.

[2]Thomas H. Morton and Mario P. Dei Dolori. "An Electives Program in a Small High School? It Works!" English Journal. October, 1971. pp. 952-56.

[3]Sylvester Kohut, Jr. "Mini-Courses in the High School Social Studies Curriculum." The Social Studies. April, 1973. pp. 169-71.

[4]Arthur D. Roberts and Robert K. Gable. "Mini Versus Traditional: An Experimental Study of High School Social Studies Curricula. Paper presented at the National Council for the Social Studies 52nd Annual Meeting. Boston, Massachusetts. November, 1972.

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CHAPTER ONE

Introduction

Evaluations, like dissertations, are often said to be destined to be placed upon shelves after having been read by only their authors and the audience that is required to read them,with neither group of people being much affected by the process. It is fervently hoped that the present attempt at evaluation of a project has something other than an early interment.

As should be garnered from the reading of the objective data presented in Chapter Three, the present project has met with a measure of success during the current project year.

The School District has several options available to it in regard to the present program, the main optives being: (1) to continue the implementation of the "High School With Options" program at the present level of emphasis; (2) to continue the implementation of the program with increased emphasis; (3) to discontinue the program process altogether. As will be recognized in the present effort, the decision for the 1973-74 school year is to accept option one, with an eye to considering option two, given that this option is deemed acceptable to the people concerned.

Before deciding on any course of action, it is worthwhile first to look at the data. The author is well aware that voluminous amounts of data can interfere with the readers' understanding the meaning of sets of results. And most assuredly, the amount of data collected in this effort is substantial. An attempt has been made to limit the report to a summary or overview of the data which, in the eyes of this investigator, provides an optimism amount of easily interpreted information.

In the next chapter, an overview of the design of this study will be presented.

CHAPTER TWO

Design and Procedures

The Research Population

The research population for this study consisted of all students in grades 9-12 attending Wessington Springs High School during the 1973-74 school year.* This high school was selected to participate in a pilot project designed to enhance the high school experience of these students via modification of staff behavior, instruction, curriculum offerings, student-teacher interpersonal relationships, and community participation. At the time of this study the project was in its first year of operation and was funded during the 1973-74 by the United States Office of Education under the Elementary and Secondary Education Act, Title III, P.L. 89-10 as amended. The name of the project was "High School With Options".

Sources of Data

The sources of data consisted of those students who attended both the pre and posttesting sessions. These students were tested in the fall, and again near the end of the school year. A break down of students by sex and grade was reported in Table 1.

*Since funds were not released until November 1, 1973, the first year of this project did not encompass the entire 1973-74 school year.

TABLE 1

TABLE OF STUDENTS BY SEX AND GRADE LEVEL

Sex	Grade Level				Totals
	Fresh.	Soph.	Junior	Senior	
Boys	36	35	22	24	117
Girls	24	22	27	30	103
Totals	60	57	49	54	220

It should be noted that these numbers will fluctuate to a minimal degree in some of the analyses in Chapter Three. This is due to a few students' failure to respond to all items on some of the instruments. The Tables in Appendix C (see column entitled ZERO) will explain this phenomenon.

Projective Objectives

The project objectives for the 1973-74 school year were presented in the overall evaluation document. This report, a subsection of the above named document, deals only with objectives concerning the students reaction to the program. These objectives originally presented in a supplement to the initial proposal, were as follows:

At the end of the program the student shall have:

A. Participated in the program resulting in significantly higher self-concept as indicated by standardized test scores.

B. Participated in the program resulting in a more positive attitude toward school as indicated by standardized test scores.

C. Participated in a program resulting in a more positive attitude toward school subjects as indicated by standardized test scores.

Instruments

The instruments used in this study were the Self Appraisal Inventory (SAI), the School Sentiment Index (SSI), and the Subject Area Preference scale (SAP). Examples of these instruments can be found in Appendix A of this report. All three instruments were developed by the Instructional Objectives Exchange (IOX, 1972 a,b), in the UCLA Center for the Study of Evaluation.

SAI

To test objective A above, the SAI was administered to the students. The SAI is a self report instrument designed to measure the level of positive self concept. The test elicits responses to a series of questions (62) dealing with self concept along four dimensions or subscales: (1) Peer (2) Family (3) School (4) General. A composite score provides a global estimate of self concept.

SSI

To test objective B above, the SSI was employed. This instrument is a direct self report test designed to measure attitude towards several dimensions of school and school life. The instrument contains 82 items and the responses deal with seven attitudinal dimensions or subscales: (1) Teacher; Mode of Instruction, (2) Teacher; Authority and Control, (3) Teacher; Interpersonal Relationships, (4) Learning, (5) School Social Structure, (6) Peers (7) School in General. The composite score provides an eighth dimension, a global estimate of school sentiment.

SAP

To test objective C above, the SAP was administered. The SAP is a self report device designed to elicit the students' attitude toward specific subject areas. This instrument contains 48 items dealing with eight subject areas: (1) English (2) Mathematics (3) Social Studies, (4) Foreign Language (5) Fine Arts-Music (6) Vocational Education (7) Science (8) Physical Education.

Instrument Reliability

Norm referenced data on the 10X instrument was reported recently by Popham (1972). This information was presented in Table 2. The internal consistency and test-retest stability indexes, as reported, were recognized as being substantive for measures of affective constructs. Internal consisting coefficients for composite scores in the present study (posttest) were also reported in Table 2.

TABLE 2

INTERNAL CONSISTENCY AND STABILITY COEFFICIENTS FOR THE IOX INSTRUMENTS*

Instrument	Internal Consistency		Test-Retest Stability
SAI			
Peer	.61		.62
Family	.74		.70
School	.72		.53
General	.60		.67
Composite	.75	.71**	.87
SSI			
Teacher: Instruction	.73		.68
Teacher: Authority	.71		.65
Teacher: Interpersonal	.76		.81
Learning	.68		.62
Social Structure	.77		.64
Peer	.71		.71
General	.79		.68
Composite	.88	.89*	.89
SAP			
English	.74		.78
Mathematics	.73		.80
Social Studies	.62		.84
Foreign Language	.62		.84
Art-Music	.59		.76
Vocational Education	.45		.80
Science	.67		.86
Physical Education	.71		.84
Composite	.—	.89**	.—

*Popham (1972)

**Present study

Statistical Treatment

The statistical procedure used in this study was the t test for correlated means (related t test). The .10, .05, and .01 probability levels were established to show evidence of significant growth.

Since the objectives (above) predicted growth in the three major construct dimensions, the one tailed test was employed. Only those dimensions which evidenced growth were reported as significant.

In March, project officials requested of this investigator a summary report of the baseline data gathered in the pretest. This report in its entirety can be seen in Appendix B of this report.

In June, project officials requested that an item choice distribution be included in this report. Item choice distributions for all three instruments (posttest) were included in Appendix C.

In the next chapter an analysis of the data is presented.

CHAPTER THREE

Analysis of the Data

The results of the analyses of the data were reported in a systematic process by each objective. So that the reader need not turn back to Chapter Two each objective is restated and the relevant data is presented.

Objectives

Self Concept

The first objective dealt with predicted growth in the area of self concept (SAI).

OBJECTIVE A: AT THE END OF THE PROGRAM THE STUDENT SHALL HAVE PARTICIPATED IN THE PROGRAM RESULTING IN A SIGNIFICANTLY HIGHER SELF-CONCEPT AS INDICATED BY STANDARDIZED TEST SCORES.

The data regarding Objective A (SAI) was analysed for all students, students by sex, students by grade, and students by sex and grade. This information was presented in Tables 3-17. These tables will be presented on the following pages.

TABLE 3

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SELF APPRAISAL INVENTORY FOR ALL STUDENTS (N=210)

Subscale	Pretest Mean	Posttest Mean	t
Peer	41.910	42.520	2.12**
Family	41.324	42.172	2.91***
School	35.590	35.562	-0.11
General	41.733	42.191	1.89**
Composite	160.557	162.443	2.77***

**Significant at the .05 level with 209 df = 1.65

***Significant at the .01 level with 209 df = 2.34

It can be seen that significant increases in the scores was manifested in nearly all dimensions when pre and posttest means of all students were compared. Growth at the .05 level was evidenced in the Peer (t=2.12) and General (t=1.89) subscales, while growth at the .01 probability level was noted in the Family dimension (t=2.91)and in the composite (t=2.77) score. In one subscale (school) the means remained constant.

TABLE 4

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SELF APPRAISAL INVENTORY FOR ALL BOYS (N=113)

Subscale	Pretest Mean	Posttest Mean	t
Peer	41.991	42.416	1.02
Family	41.416	42.044	1.55*
School	35.611	35.920	0.89
General	42.133	42.186	0.16
Composite	161.150	162.566	1.52*

*Significant at the .10 level with 112 df=1.29

Significant increases in the self concept scores of the boys was evidenced in the family subscale (t=1.55, p=.10) and in the composite (t=1.52, p=.10) score. No significant growth was evidenced in the other subscales.

TABLE 5

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SELF APPRAISAL INVENTORY FOR ALL GIRLS (N=97)

Subscale	Pretest Mean	Posttest Mean	t
Peer	41.814	42.639	2.11**
Family	41.216	42.320	2.63***
School	35.567	35.144	-1.07
General	41.268	42.196	2.74***
Composite	159.866	162.299	2.43***

**Significant at the .05 level with 96 df=1.66
***Significant at the .01 level with 96 df=2.37

It can be seen that substantial growth was manifested in the girls scores. Significant t scores were evidenced at the .05 level in the Peer subscale (t=2.11) and at the .01 level of probability in the Family (t=2.63) and General (t=2.74) subscales as well as in the Composite (t=2.43) score. An increase was not evidenced in the School dimension.

TABLE 6

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SELF APPRAISAL INVENTORY FOR ALL NINTH GRADE STUDENTS (N=52)

Subscale	Pretest Mean	Posttest Mean	t
Peer	42.365	42.769	0.68
Family	40.731	40.981	0.47
School	36.673	35.769	-1.76
General	41.904	41.846	-0.12
Composite	161.673	161.365	-0.29

No significant increases were evidenced in the self concepts scores of ninth grade students as a group.

TABLE 7

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SELF APPRAISAL INVENTORY FOR ALL TENTH GRADE STUDENTS (N=55)

Subscale	Pretest Mean	Posttest Mean	t
Peer	41.564	41.473	-0.19
Family	41.109	41.855	1.22
School	35.109	35.109	0.00
General	40.636	41.200	1.12
Composite	158.418	161.184	0.85

No significant increases were evidenced in the self concept scores. of tenth grade students.

TABLE 8

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SELF APPRAISAL INVENTORY FOR ALL ELEVENTH GRADE STUDENTS (N=49)

Subscale	Pretest Mean	Posttest Mean	t
Peer	41.633	42.082	0.74
Family	41.490	42.327	1.33*
School	35.224	34.633	-1.28
General	41.878	42.143	0.56
Composite	160.225	161.184	0.65

*Significant at the .10 level with 48 df=1.30

A significant increase (t=1.33, p=.10) was evidenced in the self concept scores of the eleventh grades for the subscale Family.

TABLE 9

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SELF APPRAISAL INVENTORY FOR ALL TWELFTH GRADE STUDENTS (N=54)

Subscale	Pretest Mean	Posttest Mean	t
Peer	42.074	43.741	2.77***
Family	41.963	43.500	2.78***
School	35.370	36.667	2.40***
General	42.556	43.574	2.27**
Composite	161.963	167.481	4.15***

**Significant at the .05 level with 53 df=1.67.
***Significant at the .01 level with 53 df=2.40

It can be seen that increases in self concept scores were evidenced in all of the dimensions by the twelfth grade students. A significant increase (.05) was indicated in the General Subscale (t=2.27) while .01 growth was evidenced in the Peer (t=2.77), Family (t=2.78), School (t=2.40) subscales as well as in the Composite score (t=4.15).

TABLE 10

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SELF APPRAISAL INVENTORY FOR NINTH GRADE BOYS (N=29)

Subscale	Pretest Mean	Posttest Mean	t
Peer	42.517	42.379	-0.17
Family	40.966	41.414	0.76
School	36.793	36.241	-0.68
General	42.552	42.276	-0.43
Composite	162.828	162.310	-0.44

No significant increases were evidenced in the self concept scores of ninth grade boys.

TABLE 11

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SELF APPRAISAL INVENTORY FOR NINTH GRADE GIRLS (N=23)

Subscale	Pretest Mean	Posttest Mean	t
Peer	42.174	43.261	1.21
Family	40.435	40.437	0.00
School	36.522	35.174	-2.42
General	41.087	41.304	0.27
Composite	160.217	160.174	-0.02

No significant increases were noted in the self concept scores of ninth grade girls.

TABLE 12

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SELF APPRAISAL INVENTORY FOR TENTH GRADE BOYS (N=37)

Subscale	Pretest Mean	Posttest Mean	t
Peer	41.054	40.838	-0.35
Family	41.378	41.595	0.27
School	35.081	34.946	-0.27
General	40.730	41.378	0.95
Composite	158.243	158.757	-0.32

No significant increases were evidenced in the self concept scores of tenth grade boys.

TABLE 13

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SELF APPRAISAL INVENTORY FOR TENTH GRADE GIRLS (N=18)

Subscale	Pretest Mean	Posttest Mean	t
Peer	42.611	42.778	0.20
Family	40.556	42.389	2.06**
School	35.167	35.444	0.22
General	40.444	40.833	0.61
Composite	158.778	161.444	0.92

**Significant at the .05 level with 17 df=1.74

A significant increase (t=2.06, p=.05) was evidenced in the self concept scores of tenth grade girls.

TABLE 14

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SELF APPRAISAL INVENTORY FOR ELEVENTH GRADE BOYS (N=22)

Subscale	Pretest Mean	Posttest Mean	t
Peer	42.500	42.818	0.33
Family	42.273	42.818	0.57
School	35.773	35.636	-0.24
General	42.999	41.727	-1.95
Composite	163.545	163.000	-0.24

No significant increases were evidenced in the self concept scores of eleventh grade boys.

TABLE 15

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SELF APPRAISAL INVENTORY FOR ELEVENTH GRADE GIRLS (N=27)

Subscale	Pretest Mean	Posttest Mean	t
Peer	40.926	41.481	0.71
Family	40.852	41.926	1.28
School	34.778	33.815	1.38*
General	40.963	42.481	2.59***
Composite	157.519	159.704	1.15

*Significant at the .10 level with 26 df=1.32
***Significant at the .01 level with 26 df=2.48

Significant increases were evidenced in two dimensions of self concept scores of eleventh grade girls. Self concept in relation to School (t=1.38) grew significantly at the .10 level while self concept in General (t=2.59) increased at the .01 level of probability.

TABLE 16

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SELF APPRAISAL INVENTORY FOR TWELFTH GRADE BOYS (N=25)

Subscale	Pretest Mean	Posttest Mean	t
Peer	42.320	44.440	2.06**
Family	41.240	42.760	1.67*
School	34.880	37.240	2.98***
General	42.960	43.680	1.16
Composite	161.400	168.120	3.05***

*Significant at the .10 level with 24 df=1.32
**Significant at the .05 level with 24 df=1.71
***Significant at the .01 level with 24 df=2.49

It can be seen that the self concept scores of twelfth grade boys increased significantly in all dimensions except in the General subscale. Growth was evidenced at the .10 level in the Family subscale (t=1.67), the .05 level in the Peer subscale (t=2.06), and at the .01 level in the School subscale (t=2.98) as well as in the Composite score (t=3.05).

TABLE 17

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SELF APPRAISAL INVENTORY FOR TWELFTH GRADE GIRLS (N=29)

Subscale	Pretest Mean	Posttest Mean	t
Peer	41.862	43.138	1.84**
Family	42.586	44.138	2.29**
School	35.793	36.172	0.54
General	42.207	43.483	1.99**
Composite	162.448	166.931	2.80***

**Significant at the .05 level with 28 df=1.70
***Significant at the .01 level with 38 df=2.47

It can be seen that the self concept scores of the twelfth grade girls increased significantly in all subscales with the exception of School. Positive (.05) growth was evidenced in the dimensions Peer (t=1.84), Family (t=2.29), and General (t=1.99). A significant (.01) increase (t=2.80) was manifested in the Composite score.

Attitude Toward School

The second objective dealt with predicted growth in the area of general attitude toward school (SSI).

OBJECTIVE B: AT THE END OF THE PROGRAM THE STUDENT SHALL HAVE PARTICIPATED IN A PROGRAM RESULTING IN A MORE POSITIVE ATTITUDE TOWARD SCHOOL AS INDICATED BY STANDARDIZED TEST SCORES.

The data regarding Objective B (SSI) was analysed for all students, students by sex, students by grade and students by sex and grade. This information was presented in Tables 18-32. These Tables will be found on the following pages.

TABLE 18

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SCHOOL SENTIMENT INDEX FOR ALL STUDENTS (N=205)

Subscale	Pretest Mean	Posttest Mean	t
Teacher			
Mode of Instruction	38.922	38.970	0.14
Authority and Control	25.780	26.283	1.86**
Interpersonal Relationships	30.166	29.580	-1.78
Learning	27.576	28.044	2.07**
Social Structure	38.239	38.278	0.12
Peer	22.454	22.522	0.33
General	29.732	30.039	1.09
Composite	212.868	213.717	0.65

**Significant at the .05 level with 204 df=1.65

As can be seen, significant increases in the dimension scores was evidenced in two subscales. The increase (t=1.86) in the attitude score Teacher; Authority and Control and the increase in the attitude score Learning (t=2.07) were significant at the .05 level for all students.

TABLE 19

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SCHOOL SENTIMENT INDEX FOR ALL BOYS (N=118)

Subscale	Pretest Mean	Posttest Mean	t
Teacher			
Mode of Instruction	38.619	38.864	0.51
Authority and Control	25.424	26.034	1.68**
Interpersonal Relationships	29.873	29.754	-0.26
Learning	26.796	27.602	2.69***
Social Structure	37.449	37.636	0.45
Peer	22.492	22.449	-0.16
General	29.017	29.280	0.66
Composite	209.669	211.619.	1.14

**Significant at the .05 level with 117 df=1.66
***Significant at the .05 level with 117 df=2.36

Increases in the boys' scores parallel that of all students. Increases in the dimension Teacher; Authority and Control (t=1.68) exceeds the .05 level of significance, while growth in the attitude score Learning (t=2.69) exceeds the .01 probability level.

TABLE 20

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SCHOOL SENTIMENT INDEX FOR ALL GIRLS (N=87)

Subscale	Pretest Mean	Posttest Mean	t
Teacher			
Mode of Instruction	39.333	39.115	-0.47
Authority and Control	26.264	26.621	0.88
Interpersonal Relationships	30.563	29.345	-2.58
Learning	28.632	28.644	0.03
Social Structure	39.310	39.149	-0.30
Peer	22.402	22.621	0.70
General	30.701	31.069	0.95
Composite	217.206	216.563	-0.31

No significant increases were evidenced in the attitude scores of girls.

TABLE 21

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SCHOOL SENTIMENT INDEX FOR NINTH GRADE STUDENTS (N=58)

Subscale	Pretest Mean	Posttest Mean	t
Teacher Mode of Instruction	40.431	39.724	-1.14
Authority and Control	26.362	25.965	-0.70
Interpersonal Relationships	30.948	29.483	-2.35
Learning	27.052	27.810	1.61*
Social Structure	38.776	38.103	-1.04
Peer	22.690	22.845	0.43
General	29.983	29.638	-0.58
Composite	216.241	213.569	-0.95

*Significant at the .10 level with 57 df=1.30

Ninth grade attitude scores increased significantly (.10) in the Learning dimension (t=1.61).

TABLE 22

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SCHOOL SENTIMENT INDEX FOR TENTH GRADE STUDENTS (N=52)

Subscale	Pretest Mean	Posttest Mean	t
Teacher Mode of Instruction	37.788	39.173	2.23**
Authority and Control	25.019	26.288	2.82***
Interpersonal Relationships	29.577	29.962	0.65
Learning	27.403	27.846	1.09
Social Structure	37.846	38.327	0.76
Peer	22.788	22.442	-0.75
General	29.692	29.827	0.27
Composite	210.115	213.865	1.56*

*Significant at the .10 level with 51 df=1.30
**Significant at the .05 level with 51 df=1.67
***Significant at the .01 level with 51 df=2.40

Tenth grade attitude scores were increased significantly in three dimensions of this comparison. The Composite score growth (t=1.56) exceeded the .10 level, Teacher; Mode of Instruction (t=2.23) growth exceeded the .05 level, while Teacher; Authority and Control scores growth (t=2.82) exceeded the .01 level of probability.

TABLE 23

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SCHOOL SENTIMENT INDEX FOR ELEVENTH GRADE STUDENTS (N=47)

Subscale	Pretest Mean	Posttest Mean	t
Teacher			
Mode of Instruction	38.365	37.085	-1.56
Authority and Control	25.319	25.617	0.48
Interpersonal Relationships	29.489	28.766	-0.93
Learning	27.489	28.426	1.93**
Social Structure	37.915	37.936	0.03
Peer	22.043	22.340	0.75
General	29.149	29.809	1.08
Composite	209.766	209.979	0.08

**Significant at the .05 level with 46 df=1.68

Eleventh grade attitude scores increased significantly (.05) in the Learning subscale (t=1.93).

TABLE 25

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SCHOOL SENTIMENT INDEX FOR NINTH GRADE BOYS (N=35)

Subscale	Pretest Mean	Posttest Mean	t
Teacher			
Mode of Instruction	40.514	39.543	-1.23
Authority and Control	25.999	25.857	-0.22
Interpersonal Relationships	30.743	29.486	-1.61
Learning	26.143	27.343	2.34**
Social Structure	38.400	38.257	-0.19
Peer	22.885	22.885	0.00
General	30.086	29.229	1.07
Composite	214.771	212.600	-0.68

**Significant at the .05 level with 34 df=1.70 (2.04)

The attitude scores for ninth grade boys were increased significantly (.05) in the attitude toward Learning (t=2.34) dimension.

TABLE 26

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SCHOOL SENTIMENT INDEX FOR NINTH GRADE GIRLS (N=23)

Subscale	Pretest Mean	Posttest Mean	t
Teacher Mode of Instruction	40.304	40.000	-0.30
Authority and Control	26.913	26.130	-0.77
Interpersonal Relationships	31.261	29.478	-1.71
Learning	28.435	28.522	0.10
Social Structure	39.348	37.870	-1.30
Peer	22.391	22.783	0.61
General	29.826	30.261	0.51
Composite	218.478	215.044	-0.65

No significant increases were evidenced in the attitude scores of ninth grade girls.

TABLE 27

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SCHOOL SENTIMENT INDEX FOR TENTH GRADE BOYS (N=34)

Subscale	Pretest Mean	Posttest Mean	t
Teacher Mode of Instruction	37.559	39.353	2.23**
Authority and Control	24.971	26.059	1.83**
Interpersonal Relationships	29.500	30.029	0.66
Learning	27.382	27.882	0.94
Social Structure	36.500	37.365	0.88
Peer	22.382	22.117	-0.49
General	29.088	29.176	0.13
Composite	207.382	211.882	1.39*

*Significant at the .10 level with 33 df=1.31
**Significant at the .05 level with 33 df=1.70

The attitude scores for tenth grade boys were increased significantly in three demensions. The Composite score (t=1.39) increased significantly at the .10 level, while Teacher; Mode of Instruction (t=2.23) and Authority and Control (t=1.83) exceeded the .05 probability level.

TABLE 28

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SCHOOL SENTIMENT INDEX FOR TENTH GRADE GIRLS (N=18)

Subscale	Pretest Mean	Posttest Mean	t
Teacher Mode of Instruction	38.222	38.833	0.63
Authority and Control	25.111	26.722	2.40**
Interpersonal Relationships	29.722	29.833	0.13
Learning	27.444	27.778	0.53
Social Structure	40.389	40.333	-0.07
Peer	23.556	23.056	-0.57
General	30.833	31.055	0.32
Composite	215.278	217.611	0.68

**Significant at the .05 level with 17 df=1.74

The attitude scores of tenth grade girls were increased significantly (t=2.30, p=.05) in the subscale Teacher; Authority and Control.

TABLE 29

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SCHOOL SENTIMENT INDEX FOR TWELFTH GRADE STUDENTS (N=48)

Subscale	Pretest Mean	Posttest Mean	t
Teacher Mode of Instruction	38.875	39.687	1.36*
Authority and Control	26.354	27.312	1.96**
Interpersonal Relationships	30.521	30.083	-0.69
Learning	28.479	28.167	-0.73
Social Structure	38.333	38.771	0.77
Peer	22.208	22.396	0.44
General	30.042	30.979	1.76**
Composite	214.813	217.396	1.12

*Significant at the .10 level with 47 df=1.30
**Significant at the .05 level with 47 df=1.68

Twelfth grade attitude scores were increased significantly in three dimensions of this comparison. The subscale Teacher; Mode of Instruction growth (t=1.36) exceeded the .10 level, while the subscales Teacher; Authority and Control (t=1.96) and General (t=1.76) exceeded the .05 level of probability.

TABLE 29

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SCHOOL SENTIMENT INDEX FOR ELEVENTH GRADE BOYS (N=24)

Subscale	Pretest Mean	Posttest Mean	t
Teacher Mode of Instruction	37.999	37.292	-0.55
Authority and Control	25.042	25.584	0.57
Interpersonal Relationships	29.458	29.833	0.36
Learning	26.333	27.667	1.78**
Social Structure	37.500	36.875	-0.77
Peer	21.875	22.250	0.71
General	28.083	28.958	1.07
Composite	206.292	208.458	0.63

**Significant at the .05 level with 23 df=1.71

As can be seen, the attitude scores of eleventh grade boys were increased significantly (t=1.78, p=.05) in the Learning subscale.

TABLE 30

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SCHOOL SENTIMENT INDEX FOR ELEVENTH GRADE GIRLS (N=23)

Subscale	Pretest Mean	Posttest Mean	t
Teacher			
Mode of Instruction	38.739	36.870	-1.83
Authority and Control	25.609	25.652	0.05
Interpersonal Relationships	29.521	27.652	-1.66
Learning	28.696	29.217	0.85
Social Structure	38.348	39.043	0.49
Peer	22.217	22.435	0.36
General	30.261	30.696	0.47
Composite	213.291	211.565	0.40

No significant increases were evidenced in the attitude scores of eleventh grade girls.

TABLE 31

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SCHOOL SENTIMENT INDEX FOR TWELFTH GRADE BOYS (N=25)

Subscale	Pretest Mean	Posttest Mean	t
Teacher			
Mode of Instruction	37.999	38.760	0.73
Authority and Control	25.600	26.680	1.37*
Interpersonal Relationships	29.560	29.680	0.11
Learning	27.360	27.520	0.24
Social Structure	37.360	38.000	0.74
Peer	22.680	22.480	-0.28
General	28.320	29.800	1.71**
Composite	208.880	212.920	1.03

*Significant at the .10 level with 24 df=1.32
**Significant at the .05 level with 24 df=1.71

As can be seen, significant increases in two dimension scores were evidenced in this comparison. The scores of twelfth grade boys. The increases were manifested in the subscales Teacher; Authority and Control (t=1.37, p=.10) and in attitude toward school in General (t=1.71, p=.05).

TABLE 32

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SCHOOL SENTIMENT INDEX FOR TWELFTH GRADE GIRLS (N=23)

Subscale	Pretest Mean	Posttest Mean	t
Teacher			
Mode of Instruction	39.826	40.696	1.55*
Authority and Control	27.174	28.000	1.44*
Interpersonal Relationships	31.565	30.521	1.61*
Learning	29.696	28.870	1.60*
Social Structure	39.391	39.609	0.29
Peer	21.696	22.304	1.43*
General	31.913	32.261	0.59
Composite	221.261	222.261	0.43

*Significant at the .10 level with 22 df=1.32

The attitude scores of twelfth grade girls were increased significantly in five of the seven dimensions of this analysis. The increases were manifested in all three of the Teacher subscales; Mode of Instruction (t=1.55), Authority and Control (t=1.44), Interpersonal Relationships (t=1.61) as well as in the Learning (t=1.60) and Peer (t=1.43) subscales. All of the increases exceeded the .10 probability level.

Attitude Toward Subjects

The third objective dealt with predicted growth in the area of attitude toward specific subject areas (SAP).

OBJECTIVE C: AT THE END OF THE PROGRAM THE STUDENT SHALL HAVE PARTICIPATED IN A PROGRAM RESULTING IN A MORE POSITIVE ATTITUDE TOWARD SCHOOL SUBJECTS AS INDICATED BY STANDARDIZED TEST SCORES.

The data regarding Objective C, (SAP) was analysed for all students, students by sex, students by grade, and students by sex and grade. This information is contained in Tables 33-47. These Tables will be found on the following pages.

TABLE 33

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SUBJECT AREA PREFERENCES SCALE FOR ALL STUDENTS (N=220)

Subject Area	Pretest Mean	Posttest Mean	t
English	27.041	28.355	3.04***
Mathematics	28.200	27.718	-1.04
Social Studies	26.105	25.105	-2.09
Foreign Language	24.105	24.027	-0.18
Fine Arts - Music	27.995	28.500	1.10
Vocational Education	30.309	30.986	1.39*
Science	28.636	27.900	-1.45
Physical Education	30.582	32.577	3.87***
Composite	222.973	225.168	1.04

*Significant at the .10 level with 219 df=1.29
***Significant at the .01 level with 219 df=2.34

As can be seen from the table, significant increases in attitude toward school subjects were evidenced in three of the nine dimensions. Significantly more positive attitude scores were manifested in the areas of Vocational Education (t=1.39, p=.10), English (t=3.04, p=.01) and Physical Education (t=3.87, p=.01).

TABLE 34

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SUBJECT AREA PREFERENCES SCALE FOR ALL BOYS (N=117)

Subject Area	Pretest Mean	Posttest Mean	t
English	25.598	26.761	1.87**
Mathematics	28.162	27.427	-1.08
Social Studies	24.872	23.650	-1.82
Foreign Language	22.974	22.479	- .78
Fine Arts - Music	26.943	27.179	1.86**
Vocational Education	30.855	31.094	.35
Science	28.444	27.376	-1.52
Physical Education	31.513	33.359	2.50***
Composite	218.462	219.325	.30

**Significant at the .05 level with 116 df=1.66
***Significant at the .01 level with 116 df=2.36

Attitude scores for boys were increased significantly in three dimensions of this analysis. While attitude score increases for English (t=1.87) and Fine Arts-Music (t=1.86) exceeded the .05 level, the score increase in the Physical Education subscale (t=2.50) exceeded the .05 level of probability.

TABLE 35

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SUBJECT AREA PREFERENCES SCALE FOR ALL GIRLS (N=103)

Subject Area	Pretest Mean	Posttest Mean	t
English	28.679	30.165	2.50***
Mathematics	28.243	28.049	- .31
Social Studies	27.505	26.757	-1.10
Foreign Language	25.388	25.786	.67
Fine Arts - Music	30.214	30.000	- .31
Vocational Education	29.689	30.864	1.72**
Science	28.854	28.495	- .49
Physical Education	29.524	31.689	3.03***
Composite	228.097	231.806	1.20

**Significant at the .05 level with 102 df=1.66
***Significant at the .01 level with 102 df=2.36

Attitude scores for girls were increased significantly in three dimensions of this analysis. The increases can be seen in Vocational Education (t=1.72, p=.05), English (t=2.50, p=.01) and Physical Education (t=3.03, p=.01).

TABLE 36

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SUBJECT AREA PREFERENCES SCALE FOR ALL NINTH GRADE STUDENTS (N=60)

Subject Area	Pretest Mean	Posttest Mean	t
English	29.983	28.783	-1.51
Mathematics	30.900	27.050	-3.48
Social Studies	27.033	25.383	-1.95
Foreign Language	25.467	24.300	-1.67
Fine Arts - Music	27.550	28.133	0.63
Vocational Education	29.133	28.833	-0.29
Science	29.567	25.683	-3.95
Physical Education	31.883	32.400	0.64
Composite	231.467	220.567	-2.94

No significant increases were evidenced in the attitude scores of ninth grade students. It should be noted that ninth grade mean scores were generally higher than in the other grades in the pre-test (see Appendix B).

TABLE 37

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SUBJECT AREA PREFERENCES SCALE FOR ALL TENTH GRADE STUDENTS (N=57)

Subject Area	Pretest Mean	Posttest Mean	t
English	25.439	26.474	1.13
Mathematics	27.123	27.860	1.08
Social Studies	25.754	26.298	0.71
Foreign Language	23.772	24.947	1.51*
Fine Arts - Music	27.474	28.193	0.89
Vocational Education	29.579	31.158	1.57*
Science	28.053	28.158	0.10
Physical Education	30.859	33.842	2.53***
Composite	218.053	226.930	2.31**

*Significant at the .10 level with 56 df=1.30
**Significant at the .05 level with 56 df=1.67
***Significant at the .01 level with 56 df=2.40

Attitude scores for tenth grade students were increased significantly in four dimensions of this analysis. The increases can be noted in Foreign Language (t=1.51, p=.10),Vocational Education (t=1.57, p=.10), the Composite score (t=2.31, p=.05) and in Physical Education (t=2.53, p=.01).

TABLE 38

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SUBJECT AREA PREFERENCES SCALE FOR ALL ELEVENTH GRADE STUDENTS (N=49)

Subject Area	Pretest Mean	Posttest Mean	t
English	25.918	28.571	2.83***
Mathematics	28.000	27.286	- .77
Social Studies	25.143	21.449	-3.30
Foreign Language	23.612	24.510	.74
Fine Arts - Music	28.061	28.469	.37
Vocational Education	29.918	31.490	2.00**
Science	29.531	30.082	.53
Physical Education	29.899	32.245	2.02**
Composite	220.082	224.102	.79

**Significant at the .05 level with 48 df=1.68
***Significant at the .01 level with 48 df=2.42

Significant increases in attitude scores of eleventh grade students. It can be seen that the increases were manifested in the posttest means for Vocational Education (t=2.00, p=05), Physical Education (t=2.02, p=.05) and English (t=2.83, p=.01).

TABLE 39

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SUBJECT AREA PREFERENCES SCALE FOR ALL TWELFTH GRADE STUDENTS (N=54)

Subject Area	Pretest Mean	Posttest Mean	t
English	26.481	29.667	4.67***
Mathematics	26.519	28.704	3.25***
Social Studies	26.315	26.852	.52
Foreign Language	23.389	22.315	-1.29
Fine Arts - Music	28.981	29.259	..32
Vocational Education	32.741	32.741	.00
Science	27.407	28.111	.77
Physical Education	29.519	31.741	2.54***
Composite	221.352	229.389	2.10**

**Significant at the .05 level with 53 df=1.67
***Significant at the .01 level with 53 df=2.40

Attitude scores for twelfth grade students were increased significantly in four dimensions. The increases can be noted in the Composite score (t=2.10, p=.05), English (t=4.61, p=.01), Mathematics (t=3.25, p=.01), and Physical Education (t=2.54, p=.01).

TABLE 40

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SUBJECT AREA PREFERENCES SCALE FOR NINTH GRADE BOYS (N=36)

Subject Area	Pretest Mean	Posttest Mean	t
English	29.194	28.194	-0.89
Mathematics	31.083	27.694	-2.17
Social Studies	26.028	24.194	-1.46
Foreign Language	25.222	22.778	-2.69
Fine Arts - Music	26.972	28.194	1.15
Vocational Education	30.583	29.500	-0.75
Science	29.667	26.333	-2.45
Physical Education	33.361	34.139	0.65
Composite	232.111	221.028	-2.36

No significant increases were evidenced in the attitude scores of ninth grade boys. As mentioned above, pretest means were generally high (see Appendix B) for this group.

TABLE 41

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SUBJECT AREA PREFERENCES SCALE FOR NINTH GRADE GIRLS (N-24)

Subject Area	Pretest Mean	Posttest Mean	t
English	31.167	29.667	-1.38
Mathematics	30.625	26.083	-3.05
Social Studies	28.541	27.167	-1.38
Foreign Language	25.833	26.583	0.77
Fine Arts - Music	28.417	28.042	-0.22
Vocational Education	26.958	27.833	0.58
Science	29.417	24.708	-3.40
Physical Education	29.541	29.792	0.19
Composite	230.050	219.875	-1.72

As in the analysis for ninth grade boys, no significant increases were evidenced in the attitude scores of ninth grade girls.

TABLE 42

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SUBJECT AREA PREFERENCES SCALE FOR TENTH GRADE BOYS (N=35)

Subject Area	Pretest Mean	Posttest Mean	t
English	24.314	25.314	0.79
Mathematics	27.914	27.657	0.42
Social Studies	23.914	24.600	0.74
Foreign Language	23.029	23.943	0.86
Fine Arts - Music	24.914	27.143	2.02**
Vocational Education	30.229	31.343	1.06
Science	28.429	27.571	-0.72
Physical Education	30.943	33.171	1.40*
Composite	213.086	220.743	1.60*

*Significant at the .10 level with 34 df=1.31
**Significant at the .05 level with 34 df=1.70

The attitude scores of tenth grade boys were increased significantly in three of the dimensions in this analysis. It can be seen that the increases were manifested in the posttest means for Physical Education (t=1.40, p=.10), the Composite score (t=1.60, p=.10) and in Fine Arts-Music (t=2.02, p=.05).

TABLE 43

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SUBJECT AREA PREFERENCES SCALE FOR TENTH GRADE GIRLS (N=22)

Subject Area	Pretest Mean	Posttest Mean	t
English	27.227	28.318	0.84
Mathematics	26.818	28.182	1.13
Social Studies	28.682	29.000	0.24
Foreign Language	24.955	26.545	1.44*
Fine Arts - Music	31.545	29.864	-1.70
Vocational Education	28.545	30.864	1.14
Science	27.455	29.091	0.88
Physical Education	30.727	34.909	2.45**
Composite	225.955	236.773	1.65*

*Significant at the .10 level with 21 df=1.32
**Significant at the .05 level with 21 df=1.72

Attitude scores for tenth grade girls were increased significantly in three areas. The increases can be noted in the posttest means for Foreign Language (t=1.44, p=.10), the Composite score (t=1.65, p=.10) and in Physical Education (t=2.45, p=.05).

TABLE 44

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SUBJECT AREA PREFERENCES SCALE FOR ELEVENTH GRADE BOYS (N=22)

Subject Area	Pretest Mean	Posttest Mean	t
English	23.545	27.045	2.45**
Mathematics	28.182	25.955	-1.48
Social Studies	24.091	20.091	-2.23
Foreign Language	22.909	22.500	-0.20
Fine Arts - Music	27.682	26.455	-0.79
Vocational Education	31.136	33.045	1.48*
Science	29.045	27.854	-0.70
Physical Education	30.545	33.273	1.48*
Composite	217.136	216.227	-0.11

*Significant at the .10 level with 21 df=1.32
**Significant at the .05 level with 21 df=1.72

Attitude scores for eleventh grade boys were increased significantly in three areas. It can be seen that the increases were manifested in Vocational Education (t=1.48, p=.10), Physical Education (t=1.48, p=.10) and English (t=2.45, p=.05).

TABLE 45

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SUBJECT AREA PREFERENCES SCALE FOR ELEVENTH GRADE GIRLS (N=27)

Subject Area	Pretest Mean	Posttest Mean	t
English	27.852	29.815	1.57*
Mathematics	27.852	28.370	0.46
Social Studies	26.000	22.556	-2.39
Foreign Language	24.185	26.148	1.37*
Fine Arts - Music	28.370	30.111	1.14
Vocational Education	28.926	30.222	1.32*
Science	29.926	31.889	1.60*
Physical Education	29.370	31.407	1.34*
Composite	222.482	230.519	1.23

*Significant at the .10 level with 26 df=1.32

The attitude scores of eleventh grade girls were increased significantly (.10) in five of the nine areas. The increases can be noted in English (t=1.57), Foreign Language (t=1.37), Vocational Education (t=1.32), Science (t=1.60) and Physical Education (t=1.34).

TABLE 46

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SUBJECT AREA PREFERENCES SCALE FOR TWELFTH GRADE BOYS (N=24)

Subject Area	Pretest Mean	Posttest Mean	t
English	23.958	26.458	2.63***
Mathematics	25.000	28.042	2.78***
Social Studies	25.250	24.708	-0.35
Foreign Language	19.583	19.875	0.22
Fine Arts - Music	24.792	26.375	1.24
Vocational Education	31.917	31.333	-0.34
Science	26.083	28.208	1.63*
Physical Education	30.458	32.542	1.60*
Composite	207.042	217.542	1.81**

*Significant at the .10 level with 23 df=1.32
**Significant at the .05 level with 23 df=1.71
***Significant at the .01 level with 23 df=2.50

Attitude scores for twelfth grade boys were increased significantly in five of the nine areas. It can be seen that the increases were manifested in the posttest means for Science (t=1.63, p=.10), Physical Education (t=1.60, p=.10), the Composite score (t=1.81, p=.05), English (t=2.63, p=.01) and Mathematics (t=2.78, p=.01).

TABLE 47

SUMMARY TABLE OF MEANS AND t DIFFERENCES FOR THE SUBJECT AREA PREFERENCES SCALE FOR TWELFTH GRADE GIRLS (N=30)

Subject Area	Pretest Mean	Posttest Mean	t
English	28.500	32.233	3.86***
Mathematics	27.733	29.233	1.80**
Social Studies	27.167	28.567	1.02
Foreign Language	26.433	24.267	-2.11
Fine Arts - Music	32.333	31.567	-0.66
Vocational Education	33.400	33.867	0.43
Science	28.467	28.033	-0.35
Physical Education	28.767	31.100	1.95**
Composite	232.800	238.867	1.18

*Significant at the .05 level with 29 df=1.70
**Significant at the .01 level with 29 df=2.46

Attitude scores for twelfth grade girls were increased significantly in three areas. The increases can be noted in Mathematics (t=1.80, p=.05), Physical Education (t=1.95, p=.05) and English (t=3.86, p=.01).

Summary

As can be recognized, a substantial amount of growth has been evidenced by the hard data. Significant increases in self concept and attitude scores have been noted among all students, students by sex, students by grade level, and students by sex within grade levels.

A more specific overall analysis of the data will be presented in Chapter Four.

CHAPTER FOUR

Summary, Conclusions and Recommendations

Summary

This study investigated selected aspects of student self concept, attitude toward school and attitude toward school subjects in an experimental program designed to enhance secondary school students, experience in a small rural high school. These constructs were measured by self report instruments in an initial and retesting situation. Attention was given to determining whether significant growth was evidenced by the posttest scores. Analyses were conducted for all students, students by sex, students by grade and students by sex and grade.

Procedure

The research was conducted at Wessington Springs High School, Wessington Springs, South Dakota during the 1973-74 school year, and the sample included all students (220) in grades nine through twelve attending this school for the entire year and completing all of the pre and posttests.

The following three objectives were proposed and evaluated.

OBJECTIVE A. At the end of the program the student shall have participated in the program resulting in a significantly higher self-concept as indicated by standardized test scores.

OBJECTIVE B. At the end of the program the student shall have participated in a program resulting in a more positive attitude toward school as indicated by standardized test scores.

OBJECTIVE C. At the end of the program the student shall have participaed in a program resulting in a more positive attitude toward school subjects as indicated by standardized test scores.

Self concept (Objective A.) was measured on a pre and post basis using the secondary form of the Self Appraisal Inventory (10X, 1972b.)

The secondary form of the School Sentiment Index (10X, 1972a) was administered on a pre and posttest to measure growth in general attitude toward school (Objective B.).

Attitude toward school subjects (Objective C.) was measured on a pre and posttest basis using the secondary form of the Subject Area Preference (I0X, 1972a) scale.

The statistical procedure used was the related t test (t test for correlated means). The .10, .05 and .01 significance levels were used in the interpretation and evaluation. Also, since the objectives predicted growth the one-tailed test of significance was employed.

Conclusions

Self Concept

A summary of the results in the area of Self Concept (SAI, Objective A.) was reported in Table 48. As can be seen in the Table, significant growth was evidenced in four of the five dimensions of the analysis for all students.

1. Overall growth in the Peer subscale,, (How I feel about my self in relation to my peer group) was evidenced. After examining the Table it was noted that the chief contributions to the total group growth (.05) was manifested by all girls (.05), Seniors (,01) and both sexes (.05) in the Senior year. Apparently girls and expecially seniors made the most

TABLE 48

SUMMARY OF SIGNIFICANT t DIFFERENCES AS REPORTED FOR ALL STUDENTS BY SEX, BY GRADE, AND BY SEX AND GRADE ON THE SELF APPRAISAL INVENTORY

Subscale	All Students	By Sex		By Grade				Fresh.		Soph.		Junior		Senior	
		B	G	Fr.	So.	Jr.	Sr.	B	G	B	G	B	G	B	G
Peer	B		B			A								B	B
Family	A	B	A		C	A				B				C	B
School						A							C	A	
General	B		A			B							A		B
Composite	A	B	A			A								A	A

[A] Significant Increase .01 Level
[B] Significant Increase .05 Level
[C] Significant Increase .10 Level

significant gains in the Peer construct. This does not mean that the other groups did not contribute to the overall significant growth. Had the posttest scores of the other groups been excessively lower the growth as indicated in the comparison for all students might not have been significant. This investigator can, therefore, conclude that general growth in this area was evidenced by the majority of the students.

2. Overall growth in the Family subscale (How I feel about myself in relation to my family) was indicated. Further examination of the Table revealed that the chief contributions to total group growth (.01) was evidenced by both sexes (Boys = .05, Girls = .01), Juniors (.10) and Seniors (.01), Sophomore Girls (.05) and both sexes (Boys = .10, Girls = .05) in the Senior Class. Evidently these groups made the greatest gains in the Family construct. As stated above the other groups probably made positive gains as well (as indicated in the total group significance) but failed to attain the established significance levels. Again this writer would have to conclude that general growth in this area was manifested in the scores of the majority of the students.

3. Growth in the School subscale (How I feel about myself in relationship to school) was not evidenced for all students. Significant growth was, however, evidenced by Seniors (.01), Junior Girls (.10) and Senior Boys (.01). This area may require further attention.

4. Overall growth in the General subscale (How I feel about myself in general) was evidenced. After examining Table 48 further it was noted that the chief contributions to the total group growth (.05) was manifested by Girls (.10), Seniors (.05), Junior Girls (.01) and Senior Boys (.05).

Again this researcher would have to conclude that growth was evidenced in the scores of most of the students.

5. Overall growth as indicated in the Composite score (.01) should be interpreted as a summary of the overall growth in the global area of self concept. Although the greatest overall contribution appears to be manifested in the seniors' score, it would be difficult to conclude that the significance levels as registered in the comparsion by all students were "carried" by the seniors alone. With the exception of the School subscale this writer would have to conclude that the program was successful in enhancing overall self concept.

Attitude Toward School

A summary of the results in the area of Attitude Toward School (SSI, Objective B.) was presented in Table 49. It was noted that significant growth (.05) was evidenced in two of the eight dimensions in the analysis for all students.

1. Overall growth for all students was not evidenced in the dimension Teacher; Mode of Instruction. Significant growth was, however, evidenced by Sophomores (.05), Seniors (.10), Sophomore Boys (.05) and Senior Girls (.10). The results are anything but conclusive. Perhaps the wide variation in teacher technique and methodology accounts for such findings. Teacher adjustment to the newer approaches as described in the overall program may also have contributed to the absense of general growth. And, finally the items in this subscale may be related to the findings in the next section (Attitude Toward Subject Areas, Objective C.). It is the opinion of this investigator that persons closer to project practices and procedures should examine this dimension in further detail.

TABLE 49

SUMMARY OF SIGNIFICANT t DIFFERENCES AS REPORTED FOR ALL STUDENTS, BY SEX, BY GRADE, AND BY SEX AND GRADE ON THE SCHOOL SENTIMENT INDEX

Subscale	All Students	By Sex		By Grade				Fresh		Soph		Junior		Senior	
		B	G	Fr.	So.	Jr.	Sr.	B	G	B	G	B	G	B	G
Teacher															
Mode of Instruction					B		C			B					C
Authority and Control	C		B		A		B			B	B			C	C
Interpersonal Relationships															C
Learning	B		A		C		B		B		B				C
School Social Structure															
Peer															C
General							B							B	
Composite					C					C					

[A]Significant Increase .01 Level
[B]Significant Increase .05 Level
[C]Significant Increase .10 Level

2. Overall growth in the subscale Teacher; Authority and Control was evidenced. After examing Table 49 further it was noted that the chief contributions to total group growth was indicated by the Boys (.05), Sophomores (.01), Seniors, Sophomore Boys and Girls (.05) and Senior Boys and Girls (.10). For the same reason mentioned earlier concerning contributions made by groups not indicating significant growth (see previous section) this writer would have to conclude that general growth in this construct was evidenced by most of the students.

3. Almost no growth was evidenced in the subscale Teacher; Interpersonal Relationships. The only significant comparison (.10) was evidenced by Senior Girls. It is the conclusion of this writer that persons closer to the project be directed to re-examine the objectives, procedures and implementations.(as outlined in the Operational Proposal) of the advisor-advisee component of the project along with the items of this subscale (see Appendix C) to determine whether modifications are in order.

4. Overall growth in the subscale Learning (attitude toward learning) was evidenced. Further examination of Table 49 revealed that the chief contributions to overall growth (.05) were made by Boys (.01), the Freshman Class (.10), Juniors (.05), Freshman Boys (.05), Sophomore Girls (.05) and Senior Girls (.10). It was the conclusion of this investigator that (for the same reasons mentioned earlier) general growth in attitude toward learning was manifested in the scores of most students.

5. No growth was evidenced in the subscale School Social Structure. Although initial (pretest) means were high (see Appendix B, "Summary Report of Baseline Data) this writer must conclude that this construct merits further investigation by persons closer to the project.

6. Almost no growth was evidenced in the subscale Peer (attitude toward the other students in the school). This subscale should not be confused with the Peer dimension of the SAI, in that these subscales measure different constructs. Since only one comparison registered a significant gain, (Senior Girls, $p = .10$) it was the conclusion of this writer that project officials might consider further investigation of this area. Perhaps the results could be traced to an over emphasis on peer-group competition in school work. If this seems to be the case, the individualization elements of the Instructional Component (Section 2.0 Operational Proposal) might merit further investigation and/or modification.

7. Limited growth was evidenced in the General subscale. Significant increases were manifested in the scores of Seniors (.05) and Senior Boys (.05). Since this subscale measures general attitude toward school it would be difficult to isolate causes. If in the ensuing project year other dimensions indicate improved attitudes, general improvement in this subscale will be probably be evidenced.

8. Limited growth was evidenced in the Composite of scores. Significant increases (.10) were evidenced in the posttest scores of the Freshman Class and Sophomore Boys. Since this score is a global estimate of attitude toward school, it should be treated as a summary of the other dimensions. There is certainly room for improvement, yet the improvement will have to be elicited in the separate specific constructs as measured. A similar prediction as above (see section 7) seems appropriate.

Attitude Toward School Subjects

A summary of the results in the area of Attitude Toward School Subject areas (SAP, Objective C) was presented in Table 50. It was noted that significant growth in attitude was evidenced in three of the nine dimensions in the analysis for all students.

1. Overall growth (.01) in attitude toward the subject area English was evidenced in the analysis for all students. Further examination of Table 50 revealed that the chief contributions to overall growth were made by Boys (.05), Girls (.01), Juniors (.01), Seniors (.01), Junior Boys (.05), Junior Girls (.10) and both sexes (.01) in the Senior Class. Evidently these groups made the greatest gains in attitude toward this subject area. The other groups probably reported positive growth as well (as indicated by the total group significance) but failed to attain the established significance levels. This investigator would have to conclude that general growth in attitude toward English was manifested in the scores of most students.

2. Limited growth was evidenced in attitude toward the subject area Mathematics. Significant increases revealed in the scores of Seniors (.01), Senior Boys (.01) and Senior Girls (.05). It is the conclusion of this investigator that persons closer to the project be encouraged to investigate these responses in more detail. Special effort might be placed in the area of re-evaluating goals and objectives as stated in the Instructional Component (Operational Proposal, Section 2.0) in the area of Mathematics.

3. No growth was evidenced in attitude toward the subject area Social Studies. It is the conclusion of this writer that persons closer to the project be encouraged to re-examine goals and objectives stated in the

TABLE 50

SUMMARY OF SIGNIFICANT t DIFFERENCES AS REPORTED FOR ALL STUDENTS, BY SEX, BY GRADE, AND BY SEX AND GRADE ON THE SUBJECT AREA PREFERENCE SCALE

Subscale	All Students	By Sex		By Grade				Fresh		Soph		Junior		Senior	
		B	G	Fr.	So.	Jr.	Sr.	B	G	B	G	B	G	B	G
English	A	B	A			A	A					B	C	A	A
Mathematics							A							A	B
Social Studies															
Foreign Language						C				C		C			
Fine Arts - Music		B								B					
Vocational Education	C		B		C	B					C	C			
Science														C	C
Physical Education	A	A	A		A	B	A			C		B	C	C	C
Composite					B		B			B	C		A		

[A] Significant Increase .01 Level

[B] Significant Increase .05 Level

C Significant Increase .10 Level

Instructional Component as they relate to the findings for Social Studies. Perhaps adjustments or modifications are necessary.

4. Limited growth was evidenced in attitude toward the subject area Foreign Language. Significant increases (.10) were evidenced by Sophomores, Sophomore Girls and Junior Girls. Since responses to this area were somewhat obfuscated by a lack of responses by all students (see Appendix C) in the retrival process, this writer must state that the results are inconclusive. Suitable adjustment and/or modification of this dimension of the instrument should be made for next years' analysis.

5. Limited growth was evidenced in attitude toward the subject area Fine Arts-Music. Significant increases (.05) were registered by all Boys and Sophomore Boys. Again the results are inconclusive. Further examination of this dimension may be in order.

6. Overall growth (.10) in attitude toward the subject area Vocational Education was evidenced in the analysis for all students. Further examination of Table 50 revealed that the chief contributions to overall growth were evidenced in the analyses for Girls (.05), Sophomores (.10), Juniors (.05) and Junior Boys and Girls (.10). Although these growth results do not at first appear to be as substantial as those in other areas, examination of the means (see Table 33, Chapter Three and/or The Summary Report of Baseline Data, Appendix B) indicated that the students began the year with higher attitude scores in this dimension. This writer would have to conclude that the overall growth in attitude toward Vocational Education was more substantial than it appears to be.

7. Limited growth was evidenced in attitude toward the subject area Science. Significant increases (.10) were registered by Junior Girls and Senior Boys. Further examination of this dimension may be in order.

8. Overall growth (.01) in attitude toward the subject area Physical Education was evidenced in the analysis for all students. Further examination of Table 50 revealed that growth was evidenced for all comparisons except among members of the Freshman Class. This investigator has concluded that the evidence of growth is conclusive for this dimension.

9. As mentioned in the preceding sections the Composite score should be viewed as a summary of the specific dimension scores. Therefore, in summary, this researcher would have to conclude that overall growth was limited to some degree. Significant growth was, however, evidenced by Sophomores and Seniors (.05), Sophomore Boys and Girls (.10) and Senior Boys (.01). These results should probably be viewed as a "good start" for the overall objective of improving attitude toward school subject areas.

Recommendations

The findings of the present study seem to fall into three general areas or categorical dimensions. The first area seems to include both specific and general (global) elements of concern, the second might be viewed as containing inconclusive evidence while the third contains evidence of program success and should be viewed as an area for specific and general commendation.

Concern

The first category, concern, includes those areas (specific or general) that in the eyes of this evaluator require immediate study and further evaluation.

Specific Concerns. The following are specific concerns:

1. Almost no growth was evidenced in the SSI subscale Teacher; Interpersonal Relationships. It is the recommendation of this writer that immediate steps be taken to determine (a) whether or not project goals are being implemented, (b) whether or not all goals are realistic and (c) whether modifications need to be implemented.
2. Almost no growth was evidenced in the SSI subscale Peer. It is the recommendation of this writer that the evaluation of this dimension be pursued further. A closer look at the individualized instruction element of Section 2.0 Instructional Component, might be in order.
3. Growth appeared to be lacking in attitude toward the subject areas Mathematics, Social Studies, and Science. A closer look at goals, practices and procedures in these areas seems to be in order.

Global Concerns. The following are Global concerns:

1. General attitude toward school as revealed in the Composite scores of the SSI indicated limited growth in the overall or global attitude toward school. Although improvement in this dimension will only come as a result of improvement in those specific constructs, as measured by the subscales, I feel that these scores could be improved. The obvious

recommendation is to elicit improved attitudes in the specific dimensions.

Inconclusive Evidence

The second category includes those areas either specific or general that, to this writer, merit some degree of attention. This attention should, however, be characterized as more of a "wait and see process". rather than as an "immediate action" recommendation.

Specific Examples of Inconclusive Results. The Following are examples of inconclusive results.

1. The School subscale of the SAI revealed inconclusive evidence. It may well be that this dimension will register increasingly positive views of self in relation to school with time and further implementation of the project.
2. The Teacher; Mode of Instruction (SSI) results were inconclusive. This dimension is probably directly related to one above, and the same remarks seem appropriate.
3. The results of the analysis for School Social Structure (because of the high initial pretest scores) were adjudged to be inconclusive. The remarks in one and two above again seem to appropriate.
4. The same comments seem to be (one-three above) appropriate for the General subscale of the SSI.
5. The results for Foreign Language and Fine Arts-Music (SAP) appear to be inconclusive. This may in a large part be the fault of the instrument as it relates to this particular group of students. Modification of the instrument, or elimination of these subscales in recommended for next year's evaluation design.

Global Examples of Inconclusive Results. The following are examples of global inconclusive results.

1. The Composite score of the SAP scale was, to this investigator, inconclusive. As stated in the Conclusions (above) this finding was influenced by the results in the specific subject analyses. Improved attitudes toward the specific areas will obviously enhance next year's results.
2. Evidenced by its absense, was the lack of growth as measured by all three instruments, in the part of the Freshman Class. This writer is persuaded to label this phenomenon as inconclusive evidence because of the high initial (pretest) scores of this group of students (see Appendix B). At the end of the second project year the results will probably be more conclusive. A "Wait and see" posture is recommended.

Commendations:

The third category, commendations, includes those areas, either specific or general that merit plaudits and commendations for a job well done.

Specific Commendations: The following are specific commendations:

1. Significant growth was evidenced four of the five dimensions (80%) of the SAI. The project has indeed been successful in fulfilling objective A. Those concerned are to be commended.
2. Significant growth in the area Teacher; Authority and Control was realized. The students attitudes toward their teachers has obviously improved in this area. The teachers are to be commended.

3. Significant growth was evidenced in attitude toward Learning. This being one of the core elements in the overall project goals, commendations are again in order.
4. Attitude toward English, Vocational Education, and Physical Education were conclusively improved. Special plaudits are directed at those persons involved with these elements of the curriculum.

Global Commendation

School Officers, Title III Officials, Project Officials and the Instructional Staff at Wessington Springs High School are to be truly commended for a job well done. The present level of success (in the experience of this evaluator) is seldom realized in the first year of any innovative project. I would have to conclude that the project "High School With Options" is "off and running" with a marked degree of success. I heartily recommend that the program be continued at the present or increased level of emphasis.

APPENDIX A

The Instruments

SELF APPRAISAL INVENTORY

Secondary Level

Directions:

Please show whether you agree or disagree with each of the statements in this booklet by marking one of the spaces on the answer sheet.

A = Strongly Agree B = Agree C = Disagree D = Strongly Disagree

For Example:

	A	B	C	D
I want to be a movie star.	( )	( )	(✓)	( )
I like chocolate cake.	(✓)	( )	( )	( )

There are no right or wrong answers, so respond to each statement as honestly as you can.

Do not write your name on the answer sheet. Mark whether you are a boy or girl and write your age and grade on the bottom of your answer sheet before you begin the booklet. Do not write on the booklet.

1. School work is fairly easy for me.
2. I am satisfied to be just what I am.
3. I ought to get along better with other people.
4. My family thinks I don't act as I should.
5. People often pick on me.
6. I don't usually do my share of work at home.
7. I sometimes feel upset while i'm at school.
8. I often let other people have their way.
9. I have as many friends as most people.
10. Usually no one pays much attention to me at home.
11. Getting good grades is pretty important to me.
12. I can be trusted as much as anyone.
13. I am well liked by kids my own age.

14. There are times when I would like to leave home.
15. I forget most of what I learn.
16. My family is surprised if I do things with them.
17. I am often not a happy person.
18. I am not lonely very often.
19. My family respects my ideas.
20. I am not a very good student.
21. I often do things that I'm sorry for later.
22. Older kids seem to like me.
23. I sometimes behave badly at home.
24. I often get discouraged in school.
25. I often wish I were younger.
26. I am usually friendly toward other people.
27. I don't usually treat my family as well as I should.
28. My teacher makes me feel I am not good enough.
29. I always like being the way I am.
30. I am just as well liked as most people.
31. I cause trouble to my family.
32. I am slow in finishing my school work.
33. I often am not as happy as I would like to be.
34. I am not as nice looking as most people.
35. I don't have many friends.
36. I feel free to argue with my family.
37. Even if I have something to say, I often don't say it.
38. Sometimes I am among the last to be chosen for teams.
39. I feel that my family always trusts me.
40. I am a good reader.
41. It is hard for me to make friends.
42. My family would help me in any kind of trouble.

43. I am not doing as well in school as I would like to.
44. I find it hard to talk in front of the class.
45. I sometimes feel ashamed of myself.
46. I wish I had more close friends.
47. My family often expects too much of me.
48. I am not very good in my school work.
49. I am not as good a person as I would like to be.
50. Sometimes I am hard to make friends with.
51. I wish I were a different person.
52. People don't usually have much fun when they are with me.
53. I am an important person to my family.
54. People think I am a good student.
55. I am not very sure of myself.
56. Often I don't like to be with other kids.
57. My family and I have a lot of fun together.
58. There are times when I feel like dropping out of school.
59. I can always take care of myself.
60. Many timesI would rather be with kids younger than me.
61. My family doesn't usually consider my feelings.
62. I can't be depended on.

SCHOOL SENTIMENT INDEX

Secondary level

Directions: For each statement, indicate the extent to which you agree or disagree by marking the answer sheet:

A) if you strongly agree

B) if you agree

C) if you disagree

D) if you strongly disagree

For example:

1. My classes are too easy.

If you disagree with the statement you should mark C on the answer sheet as follows:

	A	B	C	D
1.	( )	( )	(●)	( )

There are no right or wrong answers, so respond to each item as honestly as you can. Do not write your name on your answer sheet.

1. Most of my teachers try to explain to me why I deserve the grades I earn on assignments and tests.
2. I do my best in school because I can get ahead in the world with a good education.
3. Most of my teachers seem interested in the things I do outside of school.
4. Each morning I look forward to coming to school.
5. My school has too many rules.
6. Most of my teachers do not allow students much choice in what they study in class.
7. I often feel rushed and nervous at school.
8. Most of my teachers give assignments that are too difficult.
9. Students here are not as friendly as in other schools.
10. Most of my teachers try to make their subjects interesting to me.
11. I hate having to do homework.
12. My teachers are interested in what I have to say.
13. It is clear to me why I should't drop out of school.
14. This school is run like a prison.

15. In most of my classes, I have the opportunity to choose assignments which are most interesting to me.

16. I have signed up for a subject just because it seemed like it would be interesting.

17. Most of my teachers give assignments that are just busywork.

18. I enjoy working on class projects with other students.

19. Most of my teachers really like their subjects.

20. I would rather play a game that I already know than learn a new one.

21. Most of my teachers seem personally concerned about me.

22. I enjoy learning in school more than learning on my own.

23. I don't usually enjoy working on puzzles and trying to solve difficult problems.

24. I think there is too much pressure in school.

25. Most of my teachers will accept suggestions from their students.

26. School is a good place for making friends.

27. I like the challenge of a difficult assignment.

28. Most of my teachers don't try very hard to understand young people.

29. Skipping school whenever I can doesn't really bother me.

30. I find it difficult to start working on my assignments until they are almost due.

31. I'm very interested in what goes on at this school.

32. Most of the decisions in my classes are made by the teachers.

33. My teachers ask me to memorize too many facts.

34. There are other reasons for going to school besides just learning.

35. There are important subjects not taught in school now which I would be interested in taking if they were offered.

36. Students have voice in determining how this school is run.

37. Most of my teachers have encouraged me to think for myself.

38. I think most of my teachers are fair to me.

39. I generally try to get involved in many school activities.

40. Most of my teachers give me some idea of what will be on their tests.

41. I really like most of the kids at this school.

42. My teachers don't allow me to be as creative as I am able to be.

43. Most of my teachers do not recognize my right to a different opinion.

44. It would be difficult to get the most popular kids in school to include those who aren't as popular in their activities.

45. Even if I wanted to join certain groups here at school I just wouldn't be accepted.

46. I enjoy talking to many of my teachers after class.

47. Most of my teachers are critical of the way young people dress or talk.

48. In order to win an office at this school you've got to be in the right crowd.

49. Many of my teachers frequently show a lack of preparation.

50. It isn't difficult for a new student to find friends here.

51. Many of my teachers could be trusted if I discussed a personal problem with them.

52. My favorite classes, regardless of subject, are those in which I learn the most.

53. School is important to me because I find many of the things I learn are useful outside of school.

54. School is just a place to keep kids off the street.

55. Our school is so large, I often feel lost in the crowd.

56. I usually get the grade I deserve in a class.

57. Teachers are usually the friendliest with the bright students.

58. I try to do good work in my classes, because you never know when the information will be used.

59. Most of my teachers are still fair with me as a person even when I've done poorly on my school work.

60. There are enough different groups here at school for any type of student to find friends.

61. Most of my teachers make it clear about how much the students can "get away with" in class.

62. I enjoy social life here.

63. Everyone knows who the real losers in this school are.

64. There are many closed groups of students here.

65. Most of my teachers like working with young people.

66. Sometimes I just can't put a book down until I'm finished with it.

67. Most of my teachers are too concerned with discipline sometimes.

68. It is difficult for me to see my education as a stepping stone to future success.

69. At school, other people really care about me.

70. If I thought I could win, I'd like to run for an elected student body office.

71. Most of my teachers will discuss any changes made to my grade.

72. Most of my teachers just don't care about students if they're not going to college.

73. I usually never do more school work than just what is assigned.

74. Most of the teachers at my school cannot control their classes.

75. It is possible to be popular in school and also be an individualist.

76. Lunch time at school is not fun.

77. Many of my teachers are often impatient.

78. If I had the choice, I wouldn't go to school at all.

79. Many of my teachers have "pets".

80. Most of my teachers often waste too much time explaining things.

81. Occasionally I have discovered things on my own that were related to some of my school subjects.

82. If school were more related to the skills I'll need after I graduate, I might be more interested.

SUBJECT AREA PREFERENCES

Secondary Level

Directions: In this measure you will find a list of subjects. Under each subject you will find six pairs of words, place a check at the point on the scale between the pair that describes how you feel about the subject.

For example:

Home Economics

Good:	___	___	✓	___	___	___	___	Bad
Important:	___	✓	___	___	___	___	___	Unimportant

Please mark all of the six descriptive words for each subject.

1. ENGLISH

Good:	___	___	___	___	___	___	___	Bad
Meaningless:	___	___	___	___	___	___	___	Meaningful
Complex:	___	___	___	___	___	___	___	Simple:
Important:	___	___	___	___	___	___	___	Unimportant
Useless:	___	___	___	___	___	___	___	Useful
Clear:	___	___	___	___	___	___	___	Confusing

2. MATHEMATICS

Clear:	___	___	___	___	___	___	___	Confusing
Unimportant:	___	___	___	___	___	___	___	Important
Useful:	___	___	___	___	___	___	___	Useless
Complex:	___	___	___	___	___	___	___	Simple:
Meaningful:	___	___	___	___	___	___	___	Meaningless
Bad:	___	___	___	___	___	___	___	Good

3. SOCIAL STUDIES:

Important:	___	___	___	___	___	___	___	Unimportant
Confusing:	___	___	___	___	___	___	___	Clear
Meaningful:	___	___	___	___	___	___	___	Meaningless
Useless:	___	___	___	___	___	___	___	Useful
Bad:	___	___	___	___	___	___	___	Good
Simple:	___	___	___	___	___	___	___	Complex

4. FOREIGN LANGUAGE

Confusing:	___	___	___	___	___	___	___	Clear
Meaningful:	___	___	___	___	___	___	___	Meaningless
Good:	___	___	___	___	___	___	___	Bad
Complex:	___	___	___	___	___	___	___	Simple
Unimportant:	___	___	___	___	___	___	___	Important
Useful:	___	___	___	___	___	___	___	Useless

5. FINE ARTS

Bad:	___:___:___:___:___:___:___:	Good
Important:	___:___:___:___:___:___:___:	Unimportant
Meaningless:	___:___:___:___:___:___:___:	Meaningful
Simple:	___:___:___:___:___:___:___:	Complex
Confusing:	___:___:___:___:___:___:___:	Clear
Useless:	___:___:___:___:___:___:___:	Useful

6. VOCATIONAL EDUCATION

Simple:	___:___:___:___:___:___:___:	Complex
Useful:	___:___:___:___:___:___:___:	Useless
Confusing:	___:___:___:___:___:___:___:	Clear
Unimportant:	___:___:___:___:___:___:___:	Important
Meaningful:	___:___:___:___:___:___:___:	Meaningless
Good:	___:___:___:___:___:___:___:	Bad

7. SCIENCE

Meaningful:	___:___:___:___:___:___:___:	Meaningless
Bad:	___:___:___:___:___:___:___:	Good
Useful:	___:___:___:___:___:___:___:	Useless
Confusing:	___:___:___:___:___:___:___:	Clear
Unimportant:	___:___:___:___:___:___:___:	Important
Simple:	___:___:___:___:___:___:___:	Complex

8. PHYSICAL EDUCATION

Clear:	___:___:___:___:___:___:___:	Confusing
Important:	___:___:___:___:___:___:___:	Unimportant
Useless:	___:___:___:___:___:___:___:	Useful
Good:	___:___:___:___:___:___:___:	Bad
Meaningful:	___:___:___:___:___:___:___:	Meaningless
Complex:	___:___:___:___:___:___:___:	Simple

APPENDIX B

A Summary Report of the

Baseline Data

A SUMMARY REPORT

of

BASELINE DATA

WESSINGTON SPRINGS

TITLE III PROJECT

MARCH 15, 1974

Procedure

To establish baseline data for the project, students were tested using the Self Appraisal Inventory (SAI) a self report device (IOX, 1972[a]), The School Sentiment Index (SSI) a measure of attitude (IOX, 1972[b]), and the Subject Area Preference (SAP) a measure of attitude toward specific subject areas (IOX, 1972[b]).

SAI

The SAI (IOX, 1972[a]) is a self report instrument designed to measure the level of positive self concept. The test elicits responses to a series of questions (62) dealing with self concept along four dimensions or subscales: (1) Peer, (2) Family, (3) School, (4) General. A composite score provides a global estimate of self concept.

SSI

The SSI (IOX, 1972[b]) is a direct self report test designed to measure attitude toward several dimensions of school and school life. The instrument contains 82 items and the responses deal with seven attitudinal dimensions or subscales: (1) Teacher; Mode of Instruction, (2) Teacher; Authority and Control, (3) Teacher; Interpersonal Relationships, (4) Learning, (5) School Social Structure, (6) Peers, (7) School in General. The composite score provides an eighth dimension, a global estimate of school sentiment.

SAP

The SAP (IOX, 1972[b]) is a self report device designed to elicit the students' attitude toward specific subject areas. This instrument contains 48 items dealing with eight subject areas: (1) English, (2) Mathematics,

(3) Social Studies, (4) Foreign Language, (5) Art, (6) Vocational Education, (7) Science, (8) Physical Education. The composite score provides an overall estimate of attitude toward the entire curriculum.

Statistical Treatment

The statistical procedure used to analyse the pretest data was regression analysis of variance of student scores from each of the three instruments. The scores were compared by sex and by grade level. For the purpose of testing the significance of difference, the .05 probability level (that the difference evidenced could only happen 5 times in 100 by chance) was chosen a priori. The .01 probability level (that the difference evidenced could only happen 1 time in 100 by chance) was also reported.

Analysis of the Data

The purpose of this study was to investigate the levels of self concept, attitude toward school, and attitude toward subject areas among the different members of the student body at Wessington Springs High School at the onset of the project. Attention was given to determining whether significant differences existed between students of different sex and grade level. The findings were presented in the following order:

1. Analysis of SAI scores.
2. Analysis of SSI scores.
3. Analysis of SAP scores.

Analysis of SAI Scores

SAI by Sex. The results of the regression analysis of variance by sex were presented in Table 1. It was noted that a significant (.05) difference ($F=4.62$) was evidenced in the general subscale scores.

Table 1

Pretest Means and F Values for the Regression Analysis of Variance of Self Appraisal Inventory Scores by Sex

Subscale	Boys	Girls	F
Peer	41.803	41.745	< 1.0
Family	41.306	41.294	< 1.0
School	35.315	35.647	< 1.0
General	42.252	41.314	4.62*
Composite	160.677	160.000	< 1.0

*Significance at the .05 level (1 and 227 d.f.) = 3.88

Examination of the means indicated that the boys reported significantly higher self concept in this dimension then did the girls. None of the other differences were significant.

SAI by Grade. The findings of the analysis by grade were reported in Table 2. A significant (.01) difference (F=4.09) was noted in the general subscale. After examining the means the disparity was evident, with the senior; expressing the highest (42.650) levels of self concept, and sophomores (40.644) expressing the lowest. The other subscales were none-significant.

Graphic representations of the analysis were presented in Figure 1. The differences in the general subscales were quite visible in these illustrations. The seemingly lower level for the school dimension was expected, since this subscale contained fewer items.

Analysis of SSI Scores.

SSI by Sex. The results of the analysis of variance by sex was reported in Table 3. Significant differences (.01) were evidenced in the learning (F=14.57), social structure (F=8.04) and general (F=8.77) subscales was well as in the composite (F=5.557) score. After examining the means it was noted that the girls expressed higher levels of attitude in all of the significant dimensions. None of the other subscales elicited significantly different scores.

Illustrations of the differences were evidenced in Figure 2. The differing levels of suoscales were expected since each of the dimensions contained a different number of items.

Table 2

Pretest Means and F Values for the Regression Analysis of Variance of Self Appraisal Inventory Scores by Grade

Subscale	Fresh.	Soph.	Junior	Senior	F
Peer	42.109	41.452	41.498	42.050	< 1.0
Family	40.491	41.153	41.673	41.850	< 1.0
School	36.581	35.135	35.072	35.116	1.86
General	41.909	40.644	42.155	42.650	4.09**
Composite	161.091	158.390	160.382	161.667	1.16

**Significance at the .01 level (3 and 225 d.f.) = 3.87

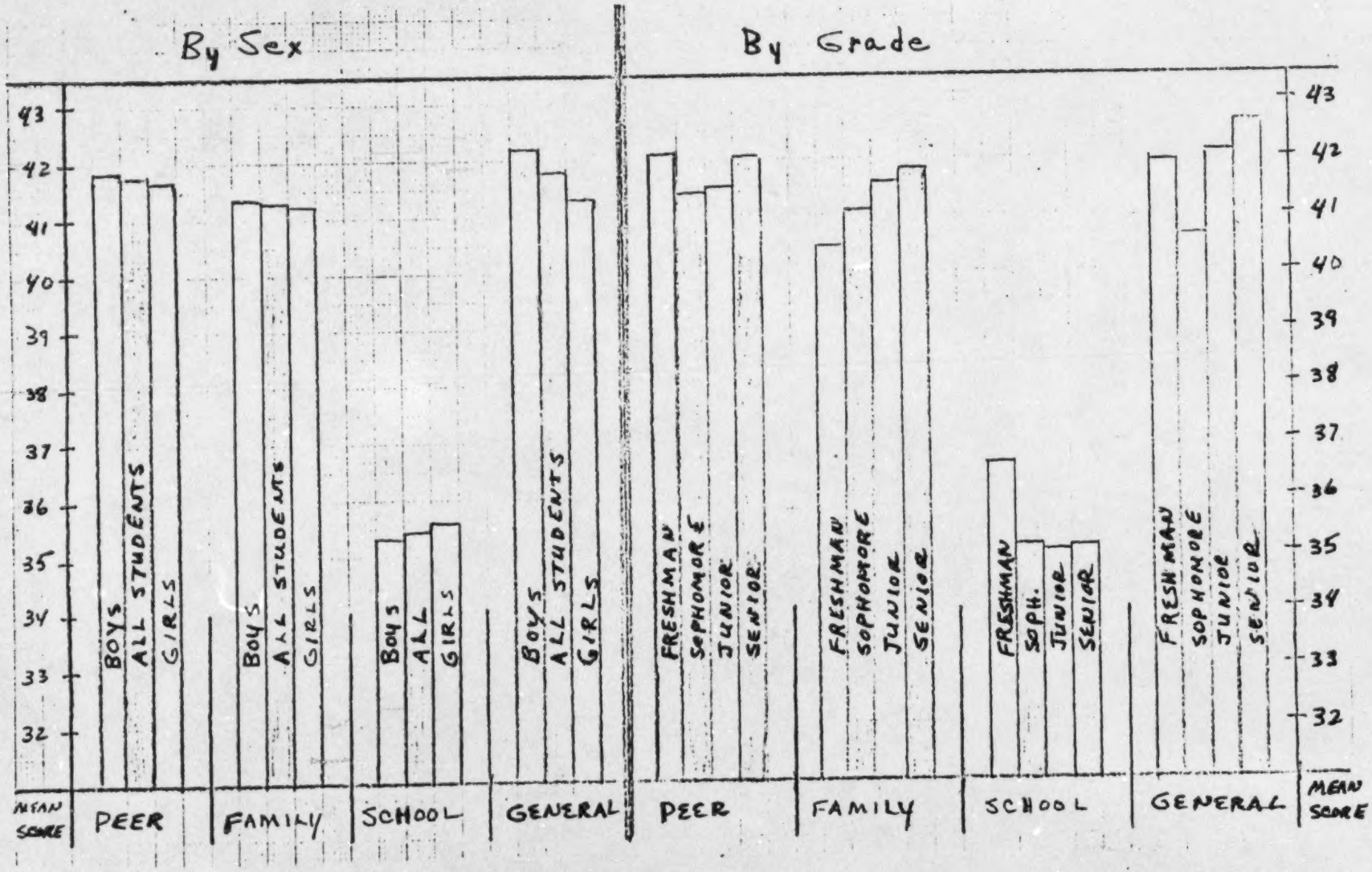

Fig. 1 -- Pretest Means for the Regression Analysis of Variance of the Self Appraisal Inventory (SAI) Scores by Sex and by Grade

Table 3

Pretest Means and F Values for the Regression Analysis of Variance of School Sentiment Index Scores by Sex

Subscale	Boys	Girls	F
Attitude Toward Teacher Mode of Instruction	38.723	38.958	< 1.0
Authority and Control	25.523	26.042	1.70
Interpersonal Relationships	29.915	30.250	< 1.0
Attitude Toward Learning	26.807	28.385	< 14.57**
Attitude Toward School Social Structure	37.411	39.083	< 8.04**
Attitude Toward Peers	22.507	22.448	< 1.0
Attitude Toward School in General	29.039	30.500	8.77**
Composite Score	209.931	215.667	5.57**

**Significance at the .01 level (3 and 224 d.f.) = 3.87

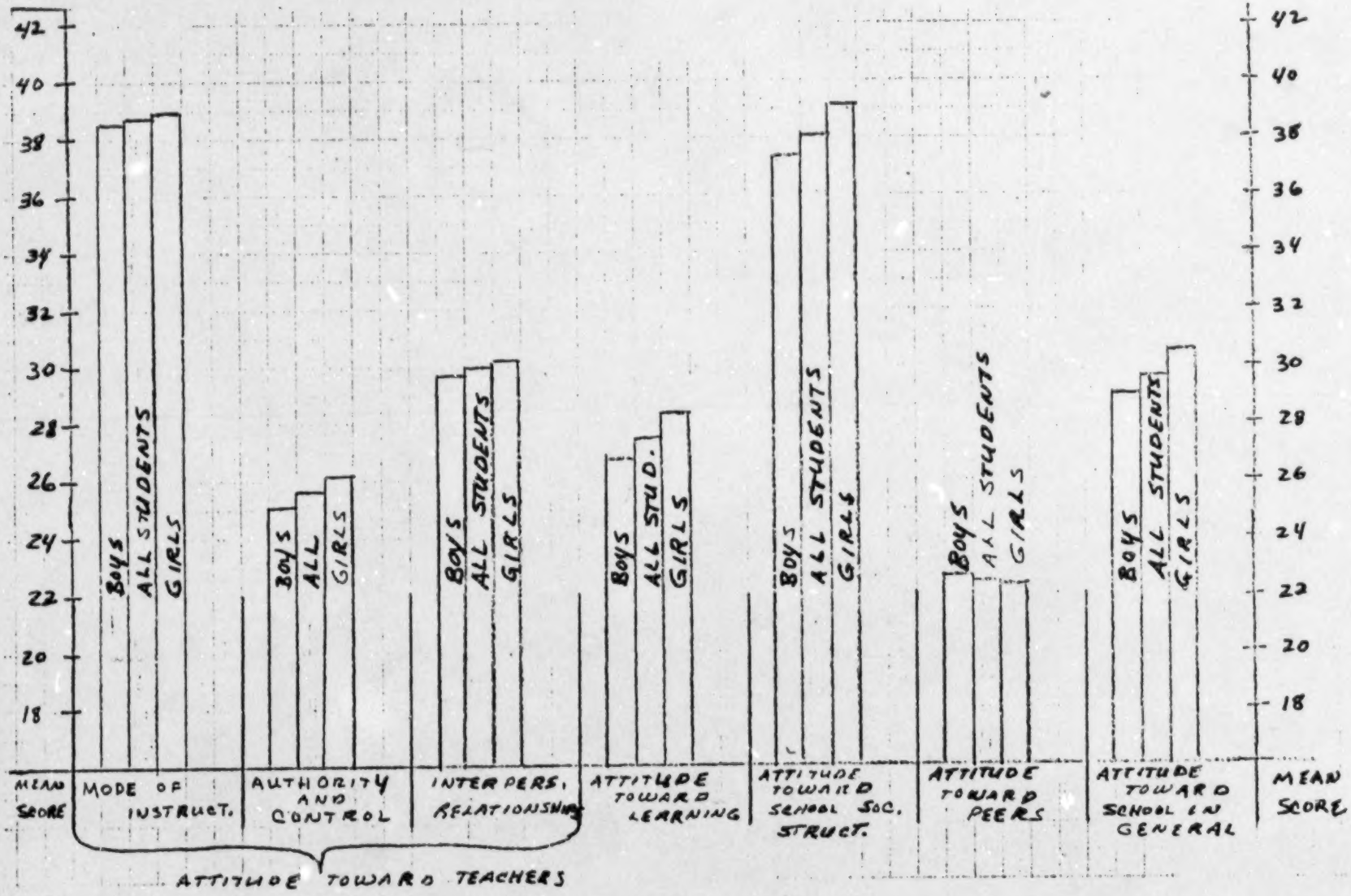

Fig. 2 -- Pretest Means for the Regression Analysis of Variance of School Sentiment Index (SSI) Scores by Sex

SSI by Grade. The findings of the analysis by grade were presented in Table 4. Significant differences were noted in the dimensions mode of instruction (significant = .01, F=3.98) and authority and control (significance = .05, F=2.66). Examination of the means for mode of instruction revealed that the highest attitudes were reported by the freshman class (40.194) while the lowest level of attitude (37.825) was expressed by the sophomore class. After examining the means for authority and control, it was noted that the highest attitude level for this dimension was manifested by the seniors (26.327) and the lowest (25.158) by the sophomores. None of the other dimensions were significant.

Graphic representation of this analysis was presented in Figure 3.

Analysis of SAP Scores

SAP by Sex. The results of the analysis of SAP scores by sex were reported in Table 5. A significant (.05) difference was noted in the social studies (F=4.47) dimension while .01 differences were evidenced for English (F=16.24), foreign languege (F=14.85), art (F=21.07), and in the composite (F=8.55) score. Examination of the means revealed that the girls expressed higher levels then did the boys in all of the significant dimensions.

The disparity between sexes was evidenced in the graphic representation (see Figure 4).

SAP by Grade. The findings of the analysis by grade were presented in Table 6. An .05 difference was noted for foreign language (F=2.96) while .01 differences were evidenced in the subscales English (F=6.40)

Table 4

Pretest Means and F Values for the Regression Analysis of Variance of School Sentiment Index Scores by Grade

Subscale	Fresh.	Soph.	Junior	Senior	F
Attitude Toward Teacher Mode of Instruction	40.194	37.825	38.058	39.037	3.98**
Authority and Control	26.226	25.158	25.192	26.327	2.66*
Interpersonal Relationships	30.710	30.772	29.193	30.437	1.62
Attitude Toward Learning	26.984	27.472	27.442	28.073	1.16
Attitude Toward School Social Structure	38.726	37.684	37.91	38.109	< 1.0
Attitude Toward Peers	22.629	22.807	22.250	22.200	< 1.0
Attitude Toward School in General	29.823	29.930	28.885	29.928	< 1.0
Composite Score	215.290	210.649	208.923	214.109	1.49

*Significance at the .05 level (3 and 225 d.f.) = 2.64

**Significance at the .01 level (3 and 225 d.f.) = 3.87

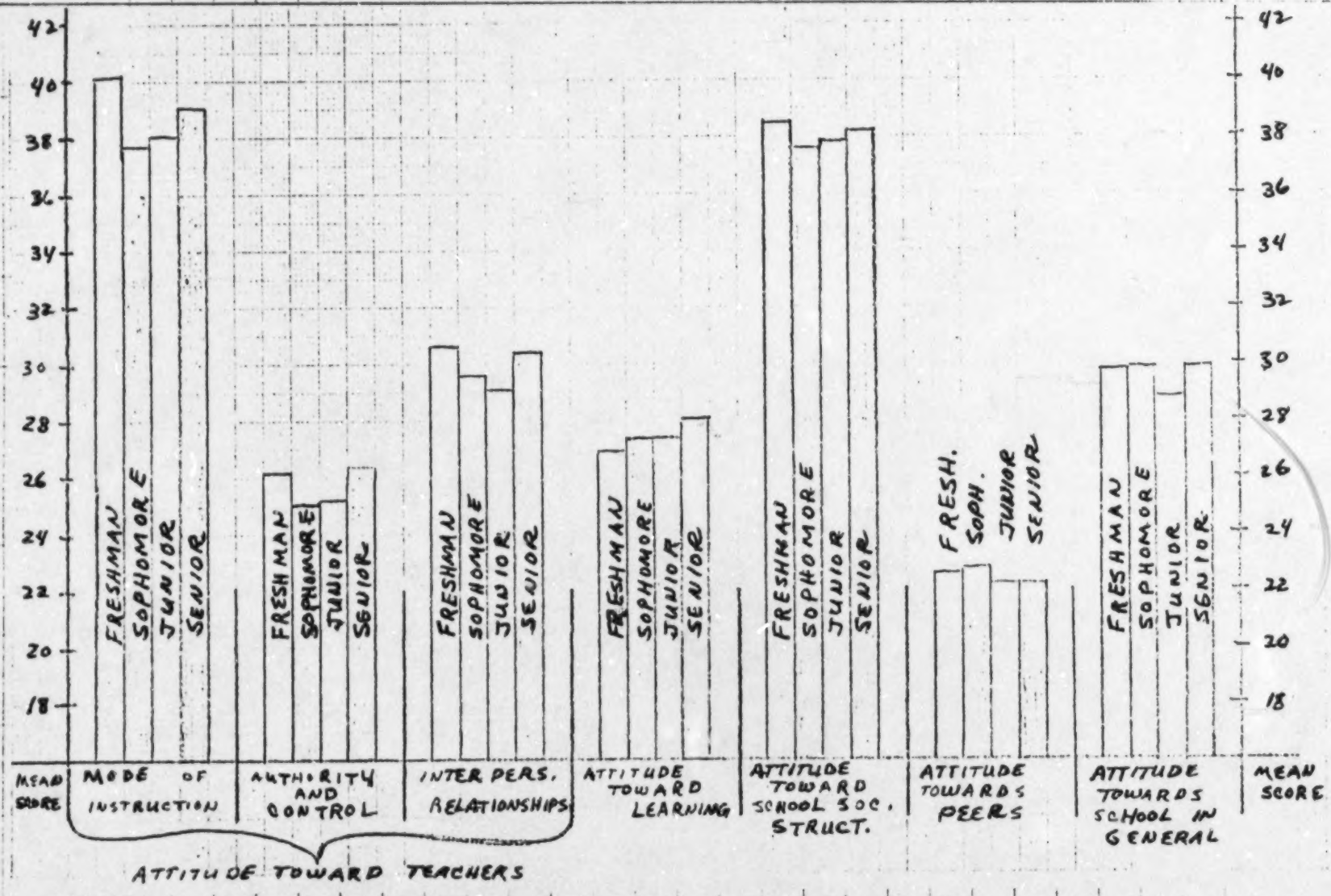

Fig. 3 --Pretest Means for the Regression Analysis of Variance of School Sentiment Index (SSI) Scores by Grade

Table 5

Pretest Means and F Values for the Regression Analysis of Variance of Subject Area Preference Scores by Sex

Subject Area	Boys	Girls	F
Attitude Toward:			
English	25.710	28.776	16.24**
Mathematics	27.586	28.065	< 1.0
Social Studies	25.320	27.243	4.74*
Foriegn Language	22.776	25.658	14.85**
Art	26.266	30.014	21.07**
Vocational Education	30.310	30.181	< 1.0
Science	28.131	28.702	< 1.0
Physical Education	30.790	29.633	< 1.32
Composite Score	216.789	228.272	8.55**

*Significance at the .05 level (1 and 227 d.f,) = 3.88

**Significance at the .01 level (1 and 227 d.f.) = 6.74

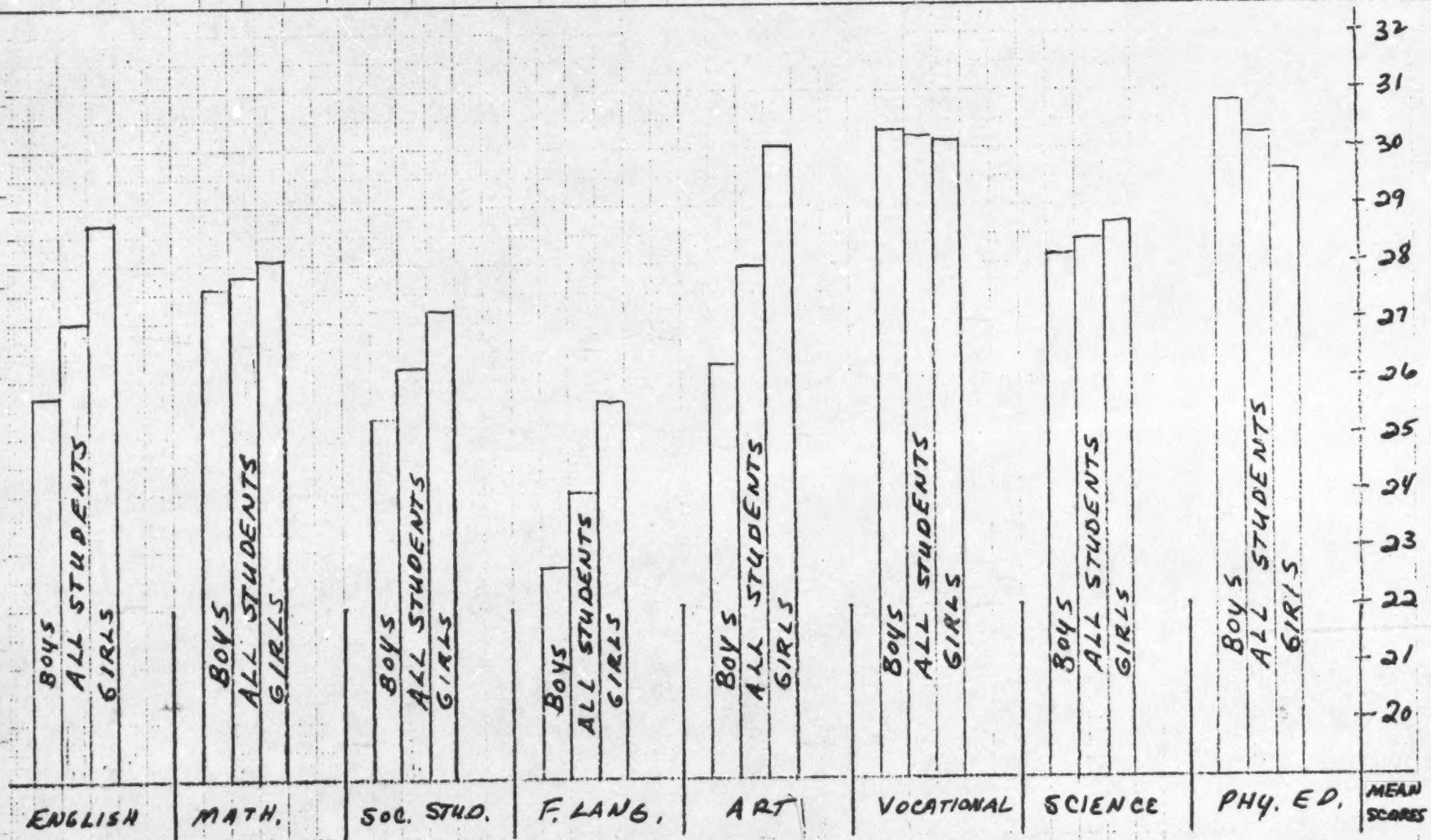

Fig. 4 -- Pretest Means for the Regression Analysis of Variance of Subject Area Preference (SAP) Scores by Sex.

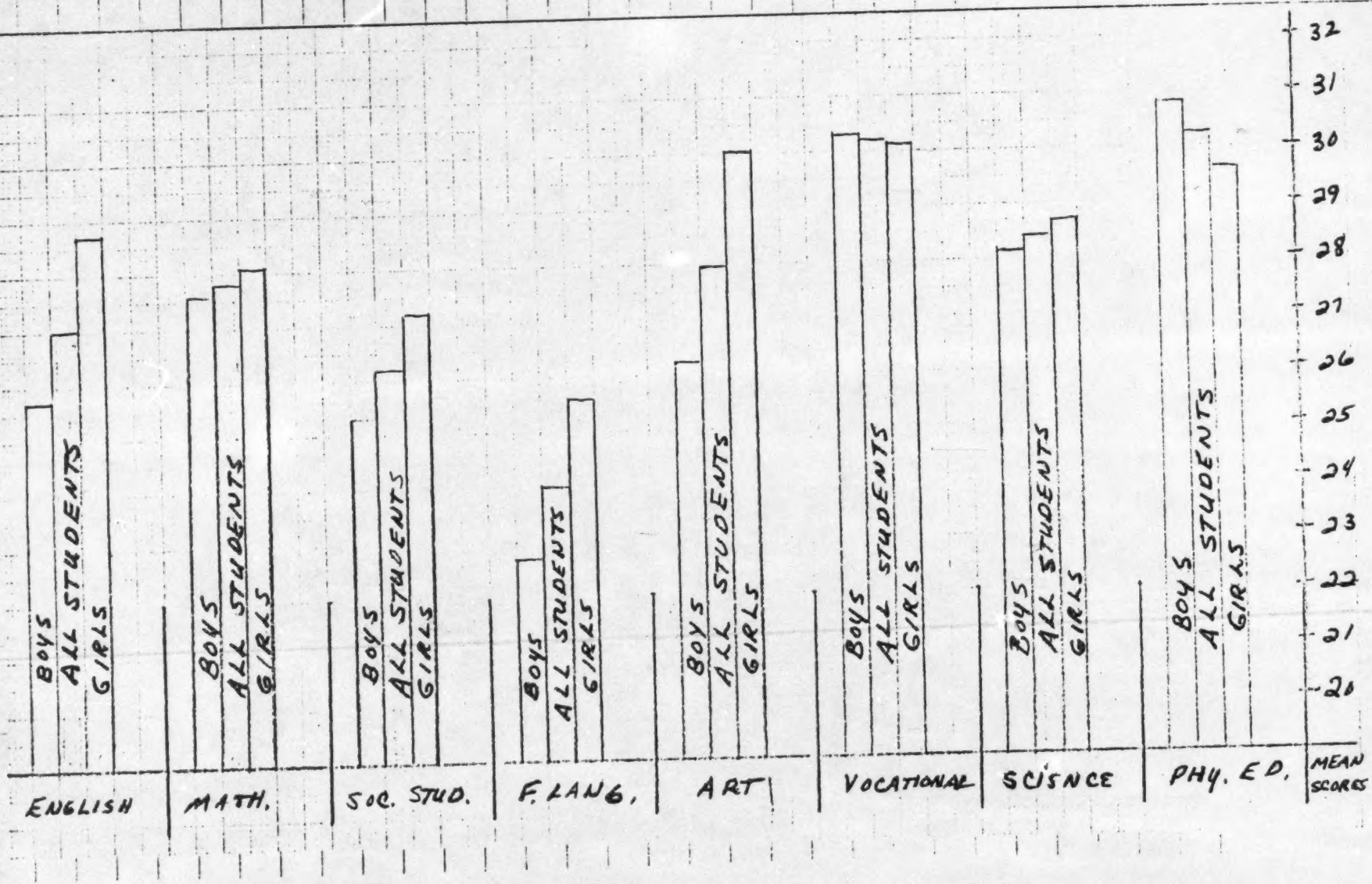

Fig. 4 -- Pretest Means for the Regression Analysis of Variance of Subject Area Preference (SAP) Scores by Sex.

Table 6

Pretest Means and F Values for the Regression Analysis of Variance of Subject Area Preference Scores by Grade

Subject Area	Fresh.	Soph.	Junior	Senior	F.
Attitude Toward:					
English	29.847	25.623	26.285	26.512	6.40**
Mathematics	30.099	26.984	28.016	26.172	5.91**
Social Studies	26.838	25.623	25.346	26.814	<1.0
Foreign Language	25.835	23.934	23.617	22.896	2.96*
Art	27.452	27.622	28.065	28.662	<1.0
Vocational Education	29.769	29.764	29.507	31.834	1.87
Science	29.462	27.764	29.227	27.234	1.79
Physical Education	31.590	30.623	29.605	29.230	1.20
Composite Score	230.893	217.919	219.656	219.352	2.46

*Significance at the .05 level (3 and 225 d.f.) = 2.64

**Significance at the .01 level (3 and 225 d.f.) = 3.87

and mathematics (F=5.91). After examing the means it was noted that the freshman class manifested the highest scores (English = 29.847, mathematics = 30.099, foreign lanuage = 25.835) in all of the significant dimensions.

Graphic representatives of this analysis were presented in Figure 5. The differences between grades in the significant dimensions were quite visible in these illustrations.

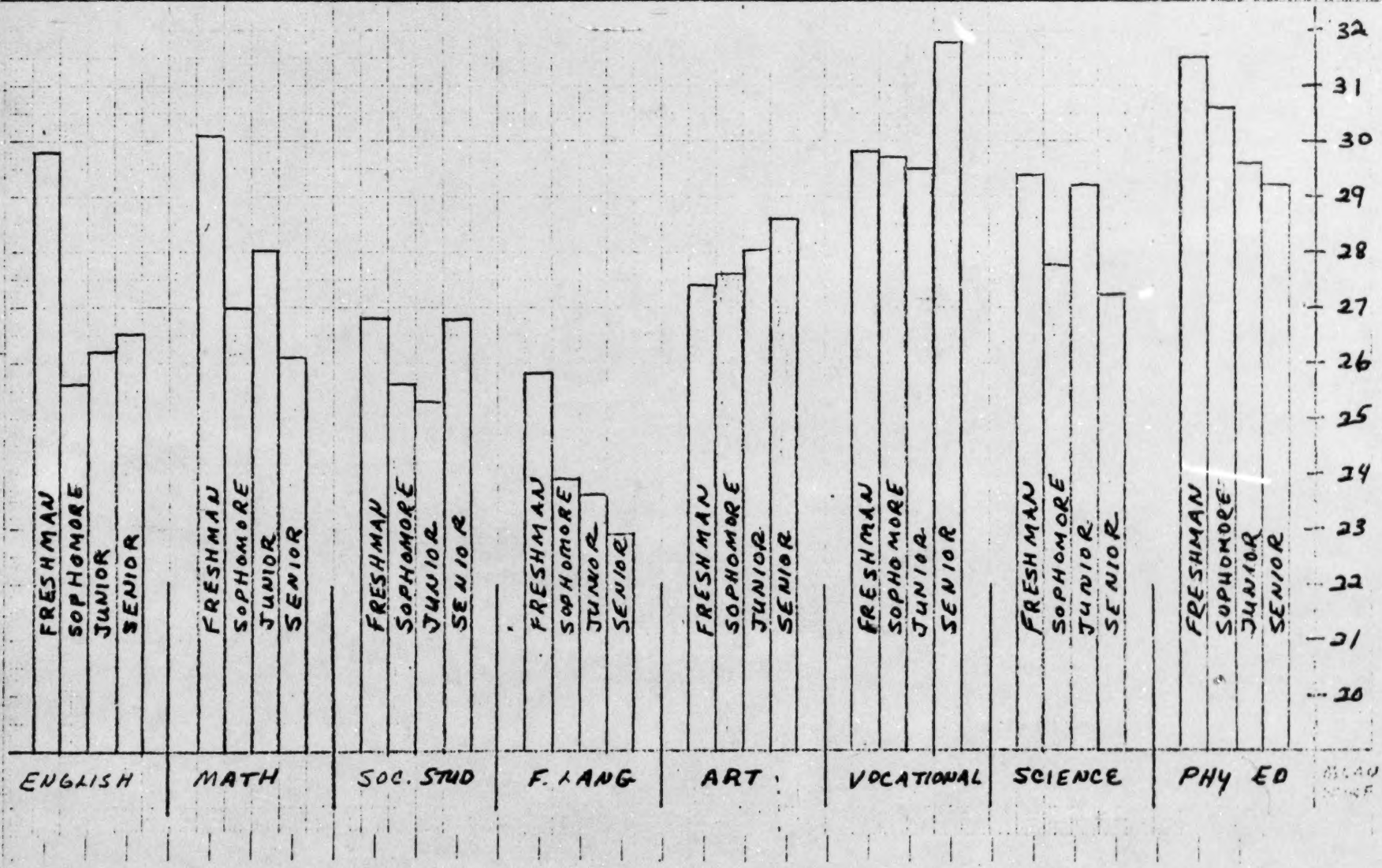

Fig. 5 -- Pretest Means for the Regression Analysis of Variance of Subject Area Preference (SAP) Scores by Grade.

APPENDIX C

Item Choice Distribution

On The Posttest

TABLE 51

CHOICE DISTRIBUTIONS BY ITEM FOR THE SELF APPRAISAL INVENTORY (POSTTEST)

ITEM*	REV**	KEY	ZERO***	CHOICE DISTRIBUTIONS (PERCENTAGES). 1	2	3	4
1	1	0	0	11	60	24	4
2	1	0	0	17	48	29	7
3	0	0	0	9	52	33	5
4	0	0	0	10	26	47	15
5	0	0	0	5	23	55	15
6	1	0	0	7	13	48	31
7	0	0	0	15	47	30	8
8	0	0	0	10	61	24	3
9	1	0	0	19	68	10	3
10	0	0	0	5	18	48	28
11	1	0	0	26	55	14	4
12	1	0	0	42	53	4	2
13	1	0	0	8	77	11	3
14	0	0	0	15	39	30	16
15	0	0	0	8	33	50	10
16	1	0	0	4	15	57	23
17	1	0	0	4	17	57	20
18	0	0	1	9	62	22	7
19	1	0	0	15	61	16	6
20	1	0	0	4	25	51	18
21	0	0	0	16	38	37	10
22	0	0	0	4	77	17	2
23	0	0	0	6	46	35	13
24	0	0	1	20	37	35	6
25	0	0	0	5	17	42	35
26	1	0	0	22	69	7	1
27	1	0	0	5	41	41	13
28	0	0	0	9	25	50	15
29	1	0	0	10	36	44	10
30	0	0	0	8	69	21	2
31	0	0	0	3	12	59	23
32	0	0	0	7	35	47	9
33	0	0	0	7	42	40	10
34	0	0	0	13	44	32	9
35	0	0	0	4	9	59	25
36	0	0	0	16	55	22	7
37	1	0	0	9	41	33	17
38	0	0	0	10	31	47	10
39	1	0	0	18	50	20	10
40	1	0	0	20	48	21	9
41	0	0	0	2	20	60	17
42	1	0	1	28	49	15	7

*See Subscale Key below

**Revised Item scoring = 1

***Eliminated from the overall analysis

TABLE 51 (cont.)

CHOICE DISTRIBUTIONS BY ITEM FOR THE SELF APPRAISAL INVENTORY (POSTTEST)

CHOICE DISTRIBUTIONS (PERCENTAGES)

Item*	Rev**	Key	Zero***	1	2	3	4
43	0	0	0	17	41	35	6
44	0	0	0	31	37	23	8
45	0	0	1	10	53	30	5
46	0	0	0	10	40	43	6
47	0	0	0	10	31	48	10
48	1	0	0	8	22	57	11
49	1	0	0	7	47	36	8
50	0	0	0	6	31	52	10
51	0	0	0	3	17	53	23
52	1	0	0	5	18	60	15
53	1	0	0	21	54	17	7
54	1	0	0	10	60	21	8
55	1	0	0	10	44	36	9
56	0	0	0	7	23	47	23
57	1	0	0	18	51	24	5
58	0	0	0	10	22	35	31
59	1	0	0	16	57	25	2
60	0	0	0	4	21	55	17
61	0	0	1	5	15	54	23
62	0	0	0	4	7	42	43

*See Subscale Key below
**Revised Item scoring = 1
***Eliminated from the overall analysis

SUBSCALE KEY FOR THE SELF APPRAISAL INVENTORY

Items representing each subscale are as follows:

Peer: Items 3, 5, 9, 13,18, 22,26,30, 35, 38, 41, 46, 50; 52, 56, 60

Family: Items 4, 6, 10, 14, 16, 19, 23, 27, 31, 36, 39, 42, 47, 53, 57, 61

School: Items 1, 7, 11, 15, 20, 24, 28, 32, 40, 43, 44, 48, 54, 58

General: Items 2, 8, 12, 17, 21, 25, 29, 33, 34, 37, 45, 49, 51, 55, 59, 62

TABLE 52

CHOICE DISTRIBUTIONS BY ITEM FOR THE SCHOOL SENTIMENT INDEX (POSTTEST)

CHOICE DISIPIBUTIONS (PERCENTAGES).

ITEM	REV*	KEY**	ZERO***	1	2	3	4
1	1	0	0	4	43	35	17
2	1	0	0	15	60	19	5
3	0	0	0	6	26	45	22
4	1	0	0	7	28	42	20
5	0	0	0	23	31	40	6
6	0	0	0	13	35	41	11
7	0	0	0	12	33	50	4
8	0	0	0	9	25	61	5
9	0	0	1	5	19	55	18
10	1	0	0	8	62	23	7
11	0	0	0	38	37	21	4
12	1	0	0	8	54	28	8
13	1	0	0	38	44	8	9
14	0	0	0	20	28	36	15
15	1	0	0	4	31	49	14
16	1	0	0	10	63	23	4
17	0	0	0	12	35	47	6
18	1	0	0	20	65	11	4
19	1	0	0	15	69	13	3
20	1	0	0	3	16	62	17
21	1	0	1	3	35	49	10
22	1	0	0	5	39	43	9
23	0	0	0	8	31	43	17
24	0	0	0	15	40	41	4
25	1	0	0	6	61	25	6
26	1	0	0	24	64	9	2
27	1	0	0	4	32	50	12
28	0	0	0	8	28	54	9
29	0	0	0	7	21	47	23
30	0	0	0	12	44	38	5
31	1	0	1	16	60	19	4
32	0	0	0	18	57	22	2
33	0	0	0	8	21	62	8
34	1	0	0	20	65	14	1
35	1	0	0	28	50	18	3
36	1	0	0	9	35	32	21
37	1	0	1	5	66	23	4
38	1	0	0	8	70	18	4
39	1	0	0	14	60	23	4
40	1	0	0	9	69	16	4
41	1	0	0	17	66	12	4
42	0	0	0	7	24	62	6

*See Subscale Key below
**Revised Item scoring = 1
***Eliminated from the overall analysis

TABLE 52 (cont.)

CHOICE DISTRIBUTIONS BY ITEM FOR THE SCHOOL SENTIMENT INDEX (POSTTEST)

CHOICE DISTRIBUTIONS (PERCENTAGES)

Item*	REV**	KEY	ZERO***	1	2	3	4
43	0	0	0	9	32	54	4
44	0	0	0	32	43	20	4
45	0	0	1	10	27	54	8
46	1	0	1	6	40	41	11
47	0	0	0	25	35	34	6
48	0	0	0	32	46	18	3
49	0	0	0	5	23	60	11
50	1	0	0	16	50	25	8
51	1	0	0	5	49	30	13
52	1	0	0	19	54	23	4
53	1	0	0	12	62	21	4
54	0	0	0	5	15	58	21
55	0	0	0	4	8	55	31
56	1	0	0	6	67	21	5
57	0	0	1	34	42	20	2
58	1	0	0	8	67	22	1
59	1	0	1	5	65	23	5
60	1	0	0	23	62	14	2
61	1	0	0	10	62	21	6
62	1	0	0	8	64	21	6
63	0	0	0	23	55	17	4
64	0	0	0	20	52	24	3
65	1	0	0	8	67	20	3
66	1	0	0	15	45	30	8
67	0	0	0	16	49	31	4
68	0	0	0	8	20	50	20
69	1	0	1	8	51	35	4
70	1	0	0	11	46	38	5
71	1	0	0	9	59	23	8
72	0	0	0	6	22	62	10
73	0	0	0	10	62	25	3
74	0	0	0	4	11	74	11
75	1	0	0	12	54	23	11
76	0	0	0	14	22	48	15
77	0	0	0	10	34	54	2
78	0	0	0	6	13	47	33
79	0	0	0	31	50	17	1
80	0	0	0	10	34	46	8
81	1	0	0	12	70	16	1
82	0	0	0	23	53	20	4

*See Subscale Key below
**Revised Item scoring = 1
***Eliminated from the overall analysis

SUBSCALE KEY FOR THE SCHOOL
SENTIMENT INDEX

Items representing each subscale are as follows:

Teacher:

Mode of Instruction: Items 1, 8, 10, 17, 25, 32, 33, 37, 40, 44, 49, 56, 75, 80

Authority and Control: Items 6, 15, 38, 42, 43, 59, 61, 67, 71, 74

Interpersonal Relationship with Students: Item: 3, 12, 21, 28, 46, 47, 51, 57, 65, 72, 77, 79

Learning: Items 11, 20, 23, 27, 30, 34, 35, 52, 66, 73, 81

Social Structure and Climate: Items 5, 7, 14, 16, 24, 31, 36, 39, 48, 55, 62, 63, 69, 70, 76

Peer: Items 9, 18, 26, 41, 45, 50, 60, 64

General: Items 2, 4, 13, 22, 29, 53, 54, 58, 68, 78, 82

TABLE 53

CHOICE DISTRIBUTIONS BY ITEM FOR THE SUBJECT AREA PREFERENCES SCALE (POSTTEST)

CHOICE DISTRIBUTIONS (PERCENTAGES).

	ITEM	REV*	KEY	ZERO**	1	2	3	4	5	6	7
English (1-6)	1	1	0	0	13	23	25	28	6	3	2
	2	0	0	1	3	7	10	19	23	25	10
	3	0	0	2	3	10	14	30	20	13	7
	4	1	0	2	17	21	23	18	10	6	4
	5	0	0	1	3	7	10	17	24	21	18
	6	1	0	1	11	21	24	22	12	6	2
Math (7-12)	7	1	0	3	7	11	17	19	16	14	12
	8	0	0	3	3	1	4	10	22	33	25
	9	1	0	3	26	34	20	10	3	3	3
	10	0	0	4	20	24	20	20	7	4	2
	11	1	0	3	17	25	23	16	6	4	5
	12	0	0	2	3	3	4	22	17	30	19
Social (13-18)	13	1	0	7	11	13	17	25	8	9	10
	14	0	0	7	10	7	10	26	15	16	10
	15	1	0	7	10	11	23	22	9	9	10
	16	0	0	7	9	10	11	23	19	13	8
	17	0	0	7	7	5	9	26	22	16	8
	18	1	0	7	5	9	13	37	11	10	9
F. Language (19-24)	19	0	0	13	19	10	18	32	4	1	3
	20	1	0	13	7	15	20	26	6	5	8
	21	1	0	13	8	14	18	33	7	2	5
	22	0	0	13	15	17	15	31	6	2	2
	23	0	0	13	5	5	7	28	18	14	10
	24	1	0	13	13	15	17	25	6	5	5
Art-Music (25-30)	25	0	0	12	3	1	3	23	20	16	23
	26	1	0	13	15	19	18	23	6	2	4
	27	0	0	13	1	3	5	23	20	18	16
	28	1	0	13	8	9	12	40	8	4	4
	29	0	0	13	2	2	5	35	18	13	12
	30	0	0	13	3	2	3	31	17	16	16
Vocational (31-36)	31	1	0	12	12	11	19	30	6	7	3
	32	1	0	12	32	23	20	9	2	0	2
	33	0	0	12	2	2	5	27	20	20	13
	34	0	0	12	2	2	4	8	21	26	25
	35	1	0	12	24	26	19	13	3	2	2
	36	1	0	11	29	26	17	14	1	1	1
Science (37-42)	37	1	0	7	25	24	20	14	4	2	3
	38	0	0	7	3	4	3	14	21	27	21
	39	1	0	9	21	26	20	12	3	5	4
	40	0	0	7	12	12	18	17	13	12	10
	41	0	0	7	4	3	7	16	17	26	21
	42	1	0	7	4	9	9	23	19	17	12
Phy. Ed. (43-48)	43	1	0	8	53	16	10	10	1	0	1
	44	1	0	8	36	19	14	10	5	2	7
	45	0	0	8	5	4	4	11	16	17	35
	46	1	0	8	37	21	14	13	3	2	2
	47	1	0	8	29	18	11	20	5	5	4
	48	0	0	7	2	1	3	15	16	20	36

*Revised item scoring = 1

**Eliminated from the overall analysis

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